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KARAVAN

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Women's dress in Mongolia is noteworthy for its soft harmonious colouring. The heavy ornaments are of silver.

KARAVAN

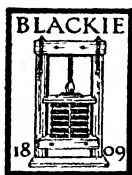
Travels in Eastern Turkestan

BY

NILS AMBOLT

Translated from the Swedish by

JOAN BULMAN, M.A.



BLACKIE & SON LIMITED
LONDON AND GLASGOW

First published in English 1939

Printed in Great Britain by Blackie & Son, Ltd., Glasgow

FOREWORD

I HAD spent some months in the summer of 1928 in Stockholm, arranging business matters connected with my big expedition and selecting its members, and was to return on 8th August to my headquarters in Urumtsi.

Thanks to the extreme generosity of the Swedish Government and the kindness of our Chinese friends, we had been able to increase the scientific staff of the expedition considerably. One of our three new members was the promising young astronomer and geodesist, Dr. Nils Ambolt, of Lund, Sweden. His work had been highly praised by Professor C. Charlier, of Lund, and Professor W. Carlheim-Gyllenskiöld, of the Academy of Science, Stockholm, and he had spent a further eight months studying at the Geodätisches Institut, Potsdam, under Professor Kohlschütter, one of the most prominent geodesists of our time, who also spoke most highly of him.

I returned to the field accompanied by Dr. Ambolt. Our ways soon parted, however, for I was called elsewhere to other duties. Ambolt was seriously ill for some time. On his recovery, he set off on his five-year expedition through Central Asia. He worked particularly happily with our chief geologist, Dr. Norin, in a collaboration that proved profitable to them both. The field of their activity was indeed wide. It included not only those parts of Sinkiang which have been known from earliest times under the names of Dzungaria and East Turkestan, but also completely unknown parts of northern Tibet. Towards the end they worked also in western Tibet and Ladakh.

Dr. Ambolt in the course of his zigzag journeyings collected the most comprehensive and valuable astronomic, geodetic, and meteorological observations. He also carried out triangulations, altitude measurements, and cartographical observations in the districts he visited. His first work, *Latitude*

and Longitude Determinations, was published a short time ago. These astronomical determinations of position have enabled the map of Central Asia to be drawn with a certainty hitherto impossible. To me, whose first journeys were made as a pioneer and pathfinder, it is a very great pleasure to be able to afford young Swedish explorers opportunities of filling in, by means of thorough and strictly scientific research, the gaps which I myself was forced to leave.

Dr. Nils Ambolt possesses the happy faculty of relating his personal adventures and experiences in an interesting and highly readable form. His book *Karavan* enjoyed an unusual success in Sweden, and was taken up with enthusiasm both by the public and the press.

It is a great pleasure to me to know that Ambolt's book is now to appear in English. No country in the world has shown a greater interest in Sinkiang, particularly East Turkestan, than Great Britain, both in the past and at the present day. Some of the roads to India run through this great province, and Englishmen from Shaw, Forsyth, Bellew, Biddulf, Gordon, Carey, Dalgleish, and Sir Francis Younghusband to Sir Aurel Stein and Peter Fleming have done great service to geographical exploration, science, and politics in these inaccessible parts.

At the present time, and possibly for many years to come, travel in Sinkiang will not be easy. The war now in progress in China places almost insuperable difficulties in the way of fresh enterprises, and at this moment it is impossible to foresee who will gain the mastery of these huge territories. Russia is very powerful there, and every friend of China hopes that, when the war is over, the province of Sinkiang will be more firmly linked than ever before with the greatest republic in the world. Any new contribution to our knowledge of Chinese Turkestan should therefore be warmly welcomed. As Ambolt held a place of honour on my staff on the big expedition of 1927-35, it would be a matter of great satisfaction to me if the same friendly interest that has always been accorded me could be extended also to my young astronomer and his book.

SVEN HEDIN.

STOCKHOLM, *December, 1938.*

PREFACE

"Youth is not an age, it is a quality"

At the time I write these lines, Sven Hedin is seventy-three years old; or perhaps it would be more correct to say that he is seventy-three years young. He still possesses unimpaired his wonderful power of inspiring others and filling them with enthusiasm, and this applies most of all to that youth which he loves and on which he has always lavished his rich optimism.

I was privileged to take part in his big scientific expedition of 1928-33 to the heart of Asia. *Karavan* is founded on these years of camping life. The first chapter of the book, "Chinese Turkestan—the Land of Contrasts", is an account of an imaginary journey, included by way of introduction to the land and its people. The rest of the book deals with the expedition itself.

During these years my joys were doubled and my troubles shared by many good friends of various nationalities. To all these I would express my sincerest thanks. May this book prove that those five years in the East were years of great happiness—not merely as seen in the delusive light of memory, but as they were lived in tent and yurt, with theodolite and pendulum, in distant lands where one's work was the finest sport.

NILS AMBOLT.

LUND, *July*, 1938.

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KARAVAN

CHAPTER I

Chinese Turkestan—the Land of Contrasts

THE Taklamakan Desert. We are travelling towards its southern boundary, where the oases are some days' march apart. Wherever the eye turns, it meets nothing but sand, heaped up into soft sand-dunes, magnificent to look at, but terrible to travel over. The windward side is evenly ridged, the lee side steeper, with the sand less firmly packed, so that walking is twice as difficult. I, who have the map to make, go with my cyclometer in as straight a line as possible due south, but the camels are constantly forced to make wide detours to avoid the looser patches. No one speaks unnecessarily—drinking water is scarce, and we keep our lips tight shut. Only Chil, the expedition's dog, runs with his tongue hanging out. He is the first on the top of every dune, on the look-out—a lovely silhouette. Roz achon, the native, glides in his *charuk*, a kind of moccasin well adapted to this type of country, easily and silently up and down, up and down. The midday storm is over, but visibility is still extremely poor, for the fine sand, once raised, takes a long time to settle.

You have good eyes, Chil! So that was why you were in such a hurry just now, but it is no use scratching round that dry reed, we are still far from water. That was the first sign, however—we are approaching life. Here and there we find dry flakes of clay at the bottom of the valleys; reeds become

more and more frequent, tamarisks grow, not in woods but singly, surrounded by the heaped-up cones of many years; camel-thorn begins to appear; the ground becomes firmer. There, at last, is the first human dwelling—not a house but simply a *satma*, a hut, built of branches and reeds for protection against sun and wind.

It is here that the herds of cattle are pastured in the winter and spring, until the heat becomes too intense for the animals, and they are moved up to the highlands farther south. Here the water in the springs is only a few fathoms down. And here is the home of the sunburnt Kurban achon, commonly known as the "Panther's Terror", the mighty hunter of the dry desert jungles.

In the distance the horizon is jagged. Individual poplars, pushing up their heads above their fellows, tell us that we are approaching an oasis. Already there are paths and narrow tracks to walk on, crossed here and there by dried-up canals. If it had been August, they would have been full of water, but now at the end of May we go through them dry-shod. There is the first real house, low and flat-roofed. Beside it is a little *köl* or *loba*, a dug-out dam to which water is conveyed by a canal. It is refilled once a week, and this water is used for household purposes—not a very hygienic arrangement.

As we go on, the houses become more and more numerous, and the meshes in the net of irrigation canals that intersect the country, closer and closer. Between them lie well-ordered fields. We pass a furrow which must, many years ago, have been a river bed; the ground is still a bit soggy and so it is used for growing rice. The white rice-stalks gleam in the bright light like mother-of-pearl.

Over there is a grove of peach trees, and here is a vineyard. Maize and wheat fields, hemp and lucerne, melons and vegetables. The whole picture speaks of prosperity.

This house belongs to Niaz Beg. He is a big merchant, a very prosperous bey, as can be seen at once from his elegant

head-dress, a white, elaborately wound turban with an edging of snow-leopard skin. He is an old man and a wise one—his beard shows that. The eastern Turk is generally a much-married man, and children are scrambling about wherever one turns. The surname *Beg* is really a title—approximately equivalent to our chairman of a town council—but with the difference that it is bought. Expensive, but none the less honourable!

That large house just behind the mosque belongs to Jussup Hadji, another bey. He is held in still higher esteem than Niaz Beg, even though he is not so rich—so strange are the ways of this land of open spaces. He is wise in council, and has been to Mecca. It is a long journey—it seldom takes less than a year—but then, in recompense for his zeal, it confers on the faithful forgiveness for his sins—in some cases only for those already committed, in others for whatever may be committed in the future as well. It must, however, in fairness be admitted that this latter grace is only granted in return for a special and very considerable monetary payment.

Every year large parties of pilgrims set out from the country—generally rich merchants, whose consciences perhaps trouble them. Sometimes a young *molla*, or priest, anxious for religious advancement, will join the party. Now and then one comes across a deeply religious individual; but hardly ever does one find anyone who has what we mean by morals. The word “honourable” is often used here in jest, but it does not correspond to anything real.

We have been passing for some time through rich cultivated land. At first the road followed a canal, edged with tall poplars. In the summer it is difficult to get people here to do heavy work. Why should they, when they can sleep instead? Food is no difficulty. Look at those mulberry trees; you have only to shake them quite lightly to bring the fruit showering down. These are black, those over there are white, fleshy, nourishing and sweet, almost too sweet for our taste. You

gather a handful and eat them, and then you lie down in the shade and enjoy your *otium cum dignitate*. The days drift aimlessly and indolently by. Happily? Perhaps.

But then comes winter. The mulberries are over, the weather begins to turn cold. Then the man goes to a bey and asks for food. "Yes, if you will enter my service, you shall have food." He is a "good" man, the bey, he offers him both food and work, and even wages! Not so much of either the first or the last, but all the more of the middle item, work. Day labourers are plentiful, all in the same position, and so they can do nothing but accept submissively and hire themselves out for a year, for the sum of five or perhaps ten shillings; and this not per week or per month, but in post-payment for the whole year. Next summer the master sees to it that his servant does not lie and sleep under any mulberry tree—at all events not in the daytime. He has to swing his *ketmān*, or heavy pick, help with the ploughing, sow and reap, and above all keep the irrigation canals in good repair, for these are the indispensable basis of all agriculture in the oases of Taklamakan.

We turn on to the main road, an artery pulsing with life. Beggars in brightly coloured rags, laden with all kinds of finery, often of a religious nature, all carry on their arms a seven-stringed *ravap* or a two-stringed *dotar*. Music touches the heart of the passer-by and disposes him to be generous. The Turki loves music, so does the Mongol and the Kirghiz. Their melodies sound melancholy-sweet in our ears, even though the tunes themselves are often monotonous enough. But the noisy discords of the Chinese, those frightful piercing wails that sound like a file grating on a saw, I for my part never learnt to enjoy.

All the time we keep meeting caravans. One man is riding on a donkey at the head of a string of twelve camels. He sprawls face downwards along her back and dozes while she jogs quietly on. Her short legs go like drumsticks, and the



"The road followed a canal, edged with tall poplars"



Grey-bearded Junnos achon, carpenter and doctor

rope attached to the neck of the first camel is taut the whole time. The other camels are tied together by means of a fine cord from the bridle of the one behind to the saddle of the one in front. If one of the animals stops, the cord is snapped. The man sprawling on the donkey notices this at once, for then the bell on the last camel stops ringing, and it is to this sound that he is accustomed to sleep.

The various transport animals—camels, horses, mules, donkeys—all carry heavy and valuable burdens. Massive iron bars and matches from Russia, cloths and spices from India, tamarisk branches from some wood near by which is already dried up and dead, onions and carrots from a neighbouring farm. Heavily loaded carts, harnessed with two horses, picturesquely dressed drivers, cracking their long whips. Out on the plain the heat is grilling; it is cooler here in this leafy avenue, but the dust keeps whirling incessantly, and one is glad of one's close-fitting motor-goggles.

We enter the town itself by a fine gateway, and go down the main street. It is bazaar day, or market day, which explains why there are so many people about. Crowds, seething crowds, and what a stench! The road is shaded by means of rush mats hung between the roofs for protection against the burning sunshine. Chinese, Turkis, and a few Kirghiz. The women in their colourful costumes are heavily veiled—"No woman is so beautiful that she is not fairer in a veil". The text of the whole picture might be: "Colour is there to be used."

The great wall on the left is to protect the *yamen*, the Chinese burgomaster's spacious dwelling, from evil spirits. The Chinese are the masters. Although few in numbers, they have kept the country in their own hands by a wise unity among themselves. They are good colonizers, and Sinkiang, or Chinese Turkestan as it is more commonly called, would seem to be far happier under Chinese government than under native rule.

Shu Darin (*Darin* is derived from Da Rhen, which means

Great Man), the burgomaster, prefers to wear European clothes, which are nothing like so beautiful as the Chinese. He has no son, "only" a daughter. His wife expresses the matter thus: "I have nothing to boast about, only a weak breath to tend."

The residence is built of fired, blue-grey bricks, with small alcoves on the walls decorated with fresco paintings in delicate tints, like water-colours, by Huang Ssueh, one of the scribes.

Liou-Dao-Tai, the governor of the province, who lives on the right, loves his old robes and continues to wear them, in defiance of the regulation which has just been issued that all officials must wear European dress. The old man's eyes shine with kindness, his whole person inspires a feeling of confidence, a respect due not merely to his old age, but to something essentially aristocratic about him.

Why is one so often disappointed in this land? I once spent a few hours in the old man's company. As time went by he appeared less and less to advantage, became morose, nervy, violent, found difficulty in following the conversation; his gaze became weak and wandering: he was longing for his opium. How many people has that terrible poison destroyed?

The road is wider now and has been well sprinkled with water, so that we are free from the horrible dust. All along the road are rows of neat and decorative shops. You can buy silks and shagreen from Shanghai, sardines from Portugal, porcelain from Russia, candles from Japan, soap from Germany, knives from Andijan, besides all the products of the country itself: paper and cotton, carpets and raw silk, hides and furs, and so on. Time and again we pass some dark shop with a funny Chinese character, generally carved in wood and gilded, hanging outside for a shop sign. These are the pawnshops. Ruinous rates of interest, and unpleasant methods of collecting it, can never frighten the Turki away from these horrible places, where many of them are reduced to absolute penury by the sly and crafty Chinese. Hatred of the usurers

was undoubtedly one of the chief causes of the revolutionary movement which swept over the country of recent years and wiped out many Chinese colonies.

We pass through another town gate. The street continues for a little way, and then the rice and maize, wheat and lucerne, begin again. We are moving farther and farther south. Darkness falls—there is no twilight here. The grey-bearded Junnos achon gives us cool night-quarters, the camels are unloaded, fed and watered, and “parked” in long rows. Due south of us is a steep terrace. There is the map to be filled in, the meteorological instruments to be read, our position to be taken by the stars, finally the diaries come out, and at midnight there are wireless time signals. Sleep. The pleasure of the fur-lined sleeping-bag, of the little soft cushion filled with fine down—memories of beloved parents.

We set out again first thing in the morning, but we promise Junnos we will come back again: the duck he sold us yesterday only cost threepence. Luscious black grapes and blooming peaches, bursting figs and sweet-scented apricots, are being sold everywhere for next to nothing.

Up on the terrace we turn and look north. There lies the whole oasis spread before us. The thousand canals are easy to pick out because of the rows of tall poplars on either side. A veritable Land of Goshen. What does it look like in the other direction?

Rather a contrast. To the south there is no trace of life, not a bush, not a plant, not a house—save here, just where we are standing, a few graves. For the dwellings of the dead they have chosen a dead land.

As far as the eye can see stretches nothing but desolate, arid waste. A sterile desert of pebbles, generally vanishing in the far distance, where the horizon is hidden by a greyish-yellow, pall-like bank of clouds. Here and there you can pick up salt straight off the ground.

Sometimes if you are lucky you can see what lies behind

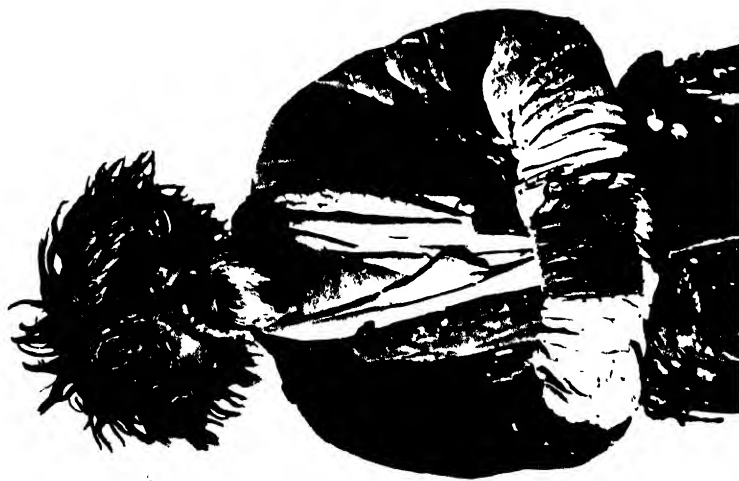
the curtain: a series of crests and peaks, the home of the swift-footed, tough hill-men.

We march all day over the stony desert, and encamp in the evening in a dry river bed, where some tamarisks provide us with firewood. There is no water for the camels; for ourselves we have a few mouthfuls.

At dawn we set out again southwards. Before long we can distinguish the soft outlines of the lower ranges; touches of vegetation begin to appear, becoming more abundant. Pasturage grows tolerable, and with our field-glasses we can make out flocks of sheep here and there. By the afternoon we reach a little village, consisting of scattered houses with small fields round about.

Here the Taghliks, or hill-men, cultivate their *arpa*, a cross between rye, barley, and oats. Quantities of different kinds of small grasses grow on the slopes of the hills, for the sheep and goats to graze on. Camel-thorn is found too, which, as its name implies, is considered a special delicacy by the "proud ship of the desert". Herds of horses and donkeys are watched by young boys dressed entirely in skins. We are given a welcome meal by Shah Chodja. He still has some delicious melons left over from last year's harvest, and the chicken, of which Bärtem Chan makes us soup, is plump and fine. She flavours it with *jumolak suput*—which sounds frightful but tastes excellent—and at the bottom of the dish a little cluster of small radishes, onions and carrots bobs up and down. The son of the house, Kasim, plucks at the strings of his dotar and sings of the ever-recurring problem, woman and love. Farther up among the hills we come across a herd or two of yaks, and a little farther still, cultivation ends. After that a magnificent wild life begins—antelopes and wild sheep, yaks, marmots, wolves, foxes, lynxes, and even a few bears.

One stage farther south; we are climbing higher and higher, and it is turning cold; the only means of transport is



Shah Chodja, a typical Taghhk



Kasim plucks at his dotar



"An unbroken chain of mountain tops covered with snow"

the yak. Then the path becomes too difficult for him, and only man can go on. But before long it would tax even a trained mountaineer, so we stop and content ourselves with photographing the scene before us. An unbroken chain of mountain tops covered with ice and snow, which one can follow for almost two hundred miles before reaching a point where it is possible to cross them and enter Tibet—the goal of our ambitions.

CHAPTER II

Kuruk-tagh—the “Dry Hills”

IT was the summer of 1929. I had just come through a difficult time. A bad attack of dysentery had prevented me for six months from giving any thought to work. Dysentery is a very serious illness, but Hummel, the expedition's doctor, was—in fact is—extremely competent, and my nurses were no less so. Sven Hedin himself had watched by my bedside night after night. He was in Peking now, but before leaving me here in Urumtsi, he had introduced me to all my companions on the expedition.

These were:

SU-PING-CHANG, the learned doctor of philosophy, who so kindly inscribed on my visiting-cards the symbols “peaceful” and “learned”! He was the head of the Chinese contingent on our expedition.

Major HEMPEL, a typical example of the fine German soldier, who was now responsible for the administration at Urumtsi and for our bodily welfare.

Dr. HAUDE, master of the thermometers and barometers, professor of meteorology to the “Travelling University”, a man of lofty ideals and a splendid companion.

The ever cheerful HENNING HASLUND, friend of the Mongols and of all of us, known to the society of Urumtsi as the “Danish Cherub”. He later became my riding-master.

FOLKE BERGMAN, the genial Santa Claus who came riding along with long icicles in his beard. It was after him that we

later christened the group on the Etsin-gol tract the "Folkungs".

Professor YUAN-FU-LI, who arrived one winter's day with the glad tidings that he had found dinosaur remains, and even brought back a dinosaur egg. We worked together for a month in the hills of Bogdo Ula, and became very good friends.

And last, but not the least important of my companions, the geologist, ERIK NORIN. A tall figure, pipe in mouth, with weather-beaten face, a small pointed beard, steel-grey eyes, every inch the field geologist; the experienced and reliable colleague, the warm friend.

Norin had just been home on a visit to Sweden. We two were at last to set off on a trip together to Kuruk-tagh.

Case after case was packed and numbered. The loads were carefully weighed—each camel was to carry 350 lb. The animals were in magnificent condition, their humps distended and their muscles firm. The summer pasturage in the Bogdo hills had done them good. One great male camel, with frothing mouth and a dangerous look, could easily have carried 500 lb.

Two dogs accompanied us, Dang-y-Dang, a beautiful little creature with a shining black coat, and her brother Tienshan, shaggy and unbrushed, but strong enough for two. They were relatives of Hummel's Zenta, and all had the same family feature to the rear: a bushy tail which stood straight up in the air and looked just like a mark of interrogation.

After the pass of Charguz-tagh, 6600 feet high, we dropped steadily down into the Turfan depression until we even reached a point some feet below sea-level. The road winds up through a deep valley on the south side of the long depression, becoming all the time more difficult to traverse. Enormous boulders lie scattered over the bottom of the narrow valley. At Arghai-bulak, or the Spring of the Stallion, which is mentioned as far back as the annals of the Han dynasty, the

water flows out direct over green, moss-covered rocks. It is fresh, clear and cool, and can be drunk without boiling—as does not often happen in this country.

Then we broke away from the road and turned south-east. We were by now among the barren hills which formed our objective—Kuruk-tagh, the “Dry Hills”. This, the Turki name, suits the district well; but why should the Mongols call it Hurtegen-Ul, the “Rain Hills”? It certainly sounds strange, but there is a reason, and we shall see later that both names are justified.

Kuruk-tagh is a chain of hills running from east to west, separated by wide valleys of impressive dimensions. The bottoms of these valleys are often salt-encrusted, the earth lying in mounds shining with crystals which are as hard as glass. This ground, known as *shor*, is very bad for travelling. In earlier times there were big lakes there, and still farther back, in the palæozoic period, large tracts of what is now mountain were covered by the sea. Norin found a pretty proof of this at one of our first camps. It was at Arpishmebulak, one of our big stations.

One afternoon I was sitting working out my astronomical observations from the evening before, when Norin came into the tent beaming with joy. “Come and look, I have found something interesting. It is quite close. You *must* come and look. Only don’t run and trip over it.”

We were off in a moment. Norin is tall, a head taller than I; has long legs and is a quick walker. I was half running at his side, and stumbled a moment, but went on again unsuspecting. He stopped and laughed: “I said, don’t run and trip over it.” We turned and went back to the place where I had nearly fallen. It looked nothing remarkable: a row of stones sticking up out of the ground. But on closer inspection, I understood his excitement.

It was a *coral-reef*! It sounds like a fairy-tale. Coral in the heart of Asia, the largest unbroken stretch of land on the



*Norin examining coral at Arpishne-bulak
He is sitting on the actual reef*



Our Christmas camp at Mo-Chia-Hutuk



On the way to Kurban-chik we crossed several frozen rivers

earth's surface? The imagination can hardly grasp what the world must have been like thousands of years ago, so different from the world we know to-day. Interesting geological discoveries of this kind were frequent, and many of them important. These were happy days, when we worked hard and enjoyed it. A quotation from my diary will show the kind of atmosphere we lived in:

"Devilish cold. Norin helped me as usual with the place-location. I enjoy my geology lessons. Already I view the landscape with quite different eyes, and it helps me considerably with my own job. Erik has marked out a place down on the 'shor' for measuring out a base-line with an invar tape. We are going to try to get trigonometric relations for the whole field we are working over. If we succeed, we shall get very exact heights, both relative and absolute, and shall also be able to make better use of the meteorological material. We have quite a little town round us, with our magnificent camp among the tamarisks. The pasturage is good, and the water drinkable though salt. We have seen no more than the tracks of antelopes. Ottehong has caught an eaglet. All goes well. The chief ought to be here to see us!"

In the middle of October we got another fifteen camels from Kara-shahr, and with them came the incomparable Mongol, Tomes. I very soon discovered one of his many virtues and raised him to the rank, honour, and dignity of Cook. He could make Swedish rissoles.

"Vorotnikoff is distilling water. The accumulators are being recharged, and the magnetic work is under way. The tool-case has arrived safe and sound. Everything is grand. I am feeling tremendously cheerful to-day, for no particular reason. Erik is superstitious and attributes it to the full moon. The temperature inside the tent this morning was -11° C. It already takes some strength of mind to wash oneself."

We left the valley that had been our home for some time, and set off southwards, following a dry stream-bed. A *toghrak*

(a kind of poplar) was lying in the middle of the valley, torn up by the roots, and looked as though it had lain there for a year. Where had it come from? There was no trace of vegetation in the vicinity.

We encamped that evening at a spot where Norin's sharp senses had detected firing. Almost no vegetation. It was cold, but we were cheerful enough.

The next day too we followed the valley. In the evening we came on a thin poplar wood. This, then, was where the *toghrak* must have come from; but how could it have been carried all that long way? Well, there is the explanation of the Mongol name for the district, Hurtegen-Ul, the Rain Hills. It sometimes happens that it does rain in this district, though seldom. But *when* it comes, it comes with a vengeance. Not gentle spring showers, but cascades of water, as though all the windows of heaven had been opened. The rain flows down from the surrounding hills into the valleys, which may be flooded to a depth of five or six feet. We noticed a poplar that had a band of reeds and twigs plastered round the trunk at eye-level, obviously an indication of the height the water had reached at the last flood. On such occasions trees may easily be torn up and carried right down to the wide valley, where we had stood and gazed in astonishment at the solitary tree trunk that morning.

The Mongols call the hills the Hurtegen-Ul because they are afraid of these violent rains. Suppose a herdsman has encamped in one of the valleys, and is wakened during the night by a thunderstorm. The animals are uneasy; the only hope is to get away, and get away quickly. Where can he drive his herd for shelter? The dull roar of rushing water can be heard already in the distance. Perhaps he will be able to get his frightened animals up in time on to a hillside where they are safe; but if not, many of them will lose their lives when the yellowish-grey, muddy flood-water sweeps down.

The Turki who calls the hills Kuruk-tagh, the Dry Hills, has no large herds to worry about. He lives by cultivating small fields in such districts as there is water to be had. There are not many such. The whole of this area, which is as large as Denmark (16,600 square miles), only contains a handful of habitations. The population cannot be more than 300 persons, or a density of .018 per square mile in comparison with 214 per square mile in Denmark.

Christmas, 1929, at Mo-Chia-Hutuk. I quote direct from my diary:

"A consignment has arrived from headquarters. The yurt¹ looks like a well-stocked general store. Pendulums, theodolites, thermometers, barometers, hams, sausages, wine, spirits, new cooking-stoves, warm underclothes, a goose, butter, jam, sugar, candles, tins of food, newspapers, shoulders of mutton, tongue, caviare, maps, and—LETTERS. (These caused much heart-burning for several days.) Old Abdu Rehim brought us a sack of milk, frozen in blocks, which is the way they transport it here in the winter. 'Cheer up, porridge to-morrow!' It is terrible how material-minded one becomes. Not altogether, though. On the night of Christmas Eve we read Kipling, Karlfeldt, Gabriel Jönsson and *Grönköpings veckoblad* (a Swedish comic paper), and on the morning of Christmas Day we played Christmas carols on the gramophone."

¹ A tent consisting of light wooden framework and red cloth or felt covering.

CHAPTER III

A Standing Long-jump

IT was the 12th January, 1930. We were in a jagged, rocky district, and the day's march looked like being more than usually difficult. Our road lay through a deep valley, at the bottom of which ran a little stream, now frozen over, and there were patches of ice all about. The valley was so narrow that in many places it would be impossible for the camels to get through with their loads, which stood out some distance on either side. We had reconnoitred the day before, and we knew what lay before us. To prevent any accident occurring, we had decided that Norin, who was by far the most experienced, should travel with the animals and see that everything was done for their safety, so that none of them slipped and injured themselves. He was also to keep an eye on the cases containing our many valuable scientific instruments. If a case containing a chronometer or some pendulums or wireless apparatus happened to get a hard knock, it might mean that we should have to do without this indispensable apparatus for the rest of the trip. We had fifty camels. Norin had his hands full.

I went on ahead with two servants and a donkey to make the map of the day's route. The liquid compass was placed on a stand, and gave us the direction of our route. Say that this was due north-west; it would be put down as 315° , the true bearing. Forward march with the eyes fixed on the point selected. A long stick is held under the arm, with a wheel fixed to the end. Each time the wheel makes a complete revolution, it gives a little click, and these clicks are

counted. After fifty clicks, we stop. The wheel is 2 metres in circumference. We have therefore walked exactly 100 metres. A line 2 mm. long is marked on the drawing-board in the direction 315° , for we are working to scale 1:50,000. The next direction is taken, and we walk on. Slowly our path traces itself out on the map. By the side of our line of march run mountain contours, with here and there a valley, marked with a black line if it is dry, or a blue one if it has water.

On our left a large tributary valley ran up from the south, with occasional patches of vegetation, and through it we could see some distant peaks. I took their direction, in the hope of later getting other angles on these same peaks and so fixing them on our map. The vegetation was marked with green, water with blue, rock with brown, archæological discoveries with red, and so on. The picture pieced itself slowly together.

We arrived at about three o'clock in the afternoon at the spot where we meant to encamp. The tent was unpacked, and I told Lao Djao and Lao Djang, the two Chinese, to set it up and then collect firewood and get everything ready so that the camp could be quickly pitched when the main caravan arrived.

As it was only three o'clock, I reckoned that I should have plenty of time to climb a peak just north of us, from which I hoped to get another view of those mountains I had seen before to the south. It looked about 1500 feet high. I took a compass, barometer, and camera, and set off. Four o'clock came, then five. I had climbed 1500 feet already, but I was still a long way from the top, which must have been more like 3000 than 1500 feet above the camp. I had estimated the height quite wrong, which is easily done when you stand below and have no points of comparison. The sun had disappeared already, and it would soon be dark. There was no possibility of getting to the top now.

Was all my trouble to be wasted, then? No, I was in luck.

There was another summit just beside me, and from it I could see, through a dip on the other side of the valley, those very mountains that I was so anxious to get. I took their direction with my compass, the angle of elevation with my clinometer, which I always kept in my pocket, and my own height above the camp with the Paulin barometer. The camera I had taken up in vain. It was too dark by now to take a photograph except with a stand.

There lay the camp in the valley below. Norin had arrived. The tents were up, and smoke was rising from the kitchen quarters. Lao Wang, Norin's excellent cook, had got a chicken that morning; we should have it for dinner beyond a doubt, with curry and rice. And Lao Wang knew his job.

I decided to join the party without delay, and picked a short cut which I thought looked safe. Hunger lent wings to my feet—I had eaten nothing since eight o'clock breakfast.

At first all went well; then I came to a drop about six feet high, jumped down without a thought, and went cheerfully on. Next drop; not six feet this time, but more like a hundred and fifty. So I did not jump, but turned back crest-fallen to the first drop. Now it is easy enough to jump *down* six feet—but *up*! That is another matter. I moved along the face of the rock. A little farther on, it was twelve feet; I tried the other side; there it was twenty. The first was the lowest point. It was not simply that the rock was perpendicular, it was positively overhanging. There was no possibility of getting a firm foothold.

I shall have to try to find some loose stones, I thought, and build a sort of step to climb up on. There were no loose stones. There was nothing. Not a tussock, not a bush, nothing but bare, unyielding rock. H'm!

Back to the 150-foot drop. This was, in a way, a little more accommodating. At the other side of the drop another cliff rose to the same level as the platform on which I stood. The

cleft between them was deep, but not so terribly wide, only six feet at the narrowest point. Six little feet! Anyone could jump that. Yes, if they could take a run, but here it was impossible to take a run. A wall of rock rose up behind me at exactly that point, and made the distance over the cleft feel twice as great, while the abyss below doubled it yet again.

I decided to call for help from the camp. I shouted, I yelled. Hopeless. The face of rock opposite cut off the sound completely. I shall have to spend the night up here, I thought. But that thought was quickly banished by another. How cold was it, last night? -27° F. *Then* it was overcast, to-night is clear; it will be colder to-night. I was right. It actually turned below -22° F., and in view of the fact that there was nothing to make a fire with I felt I preferred not to stay.

Only one possibility remained—to jump, and hope for the best. Well, in that case, I would make myself as light as possible. I had an alpenstock, and with its help I lifted the instruments over on to the other side. Camera, compass, barometer. Then my fur coat, jacket and waistcoat, which was as much as I could decently take off. I stood there in my shirt-sleeves and looked across at the other side.

One does not quickly forget such moments. In a few seconds a kaleidoscope of pictures passed by, and many thoughts flashed through my brain. But there was no time to stand thinking for long; it was so cold that my skin tingled. My alpenstock just reached over to the opposite side. I wedged it into a crevice so that it could not slip, and swung myself over on it to the other ledge. I had managed it, I had managed it perfectly; but all the same I was so shaken that I was dripping with perspiration. The crevice into which I had wedged my alpenstock was no crevice at all, but a great loose block of rock lying a-tilt. It toppled over the precipice and crashed to the bottom with a hollow thud. My alpenstock went with it. If I had happened to jump just

there, I and not the alpenstock would have been at the bottom.

It was a frightful shock. But the cold was intense, and I quickly pulled myself together, got my clothes on and set off downwards. I had soon reached the bottom, and by that time I was in great form again. There was a wonderful smell coming from the kitchen, and apparently we were going to have coffee too, which we saw only very rarely. I made straight for Norin's tent. He was looking as black as thunder. Evidently my troubles were not over yet.

"It's all very well your enjoying your work. I do too. But you must work with a little common sense. I suppose you'll admit that."—I admitted it.—"If you want to climb a hill, you set out early in the morning. Anything so idiotic as starting off at three o'clock in the afternoon, I never heard of. And then one takes, preferably, a few servants, and at all events axes and irons and picks and ropes." Yes, it was an alarming list, and the strange thing was that if I had only had a single one of those things with me, the situation would have been easily dealt with. And last of all came the thing that infuriated me most. I had seen the camp from above. He had seen me from below too, and had seen that I did not come down the *same* way that I went up. Now for it. "And one more thing. Always come down the same way as you go up. Remember that!"

The storm had worked itself out, and he began to look considerably more amiable. I took off my fur coat, undid my waistcoat, and invited him to stick his fist in and feel. I was wringing wet. "What have you been doing?" Norin asked. When I told him, he said: "Don't do that again. The food is stone cold!"

I related this anecdote at a lecture once in Stockholm. The following evening, when I was visiting some friends, my hostess proved very sceptical, and thought that long-jump of mine must be a made-up story. The only way to convince her, I decided, was to give a demonstration. I paced out six

feet on the floor. They lived in a modern flat with large windows, and on the window-ledge stood a row of most exquisite cacti.

I jumped. It cost her three of the cacti, but the window-pane and I held. Since then she has believed implicitly everything I say.

CHAPTER IV

Divine Service

AT the southern foot of Kuruk-tagh, on the edge of the stony Sai, just where a steep valley opens out between two ridges of hill, lies Kurban-chik, the Place of Sacrifice. A name like that generally conjures up an image of a little bazaar-street with a few mud-huts of shops, the wares spread out on rugs, and the merchant sitting cross-legged in the corner; fields of maize and wheat; a few tall poplars round the dam, and a little grove of apricot and peach trees behind the house of the village headman. Kurban-chik, however, is not that kind of oasis, but merely an unusually good and abundant spring. It has no human dwellings. Just occasionally some shepherd may spend the night there with his flock; or, still more rarely, a foreign traveller with a train of camels, horses and donkeys.

I arrived on the 7th February, 1930. Norin was expected a few days later—he had gone by a different way, a little farther to the east, while I for the last few days had been following the route that Sven Hedin had already mapped. The place presented an unusual aspect on the day we arrived: the ground was covered with snow! But the dry wind soon carried it away. The camel drivers did not trouble to put up the tents; there was so much drift-wood about that they simply made huge log-fires, and slept in a circle round the embers, wrapped in their long, sheep-skin coats.

Kurban-chik was one of our principal stations. We carried out pendulum observations, astronomical locations,



Abdu Rehim (centre) and two of his kinsmen outside his home at Shindi



Many of the hills in Kuruk-tagh are rich in gold. This valley is known as Altungol, the Gold Valley

triangulation, mapping, and as usual Norin marked in the different geological formations.

We had three dogs with us now. There was Snaps, the big, long-haired Tibetan, who looked like a cross between a wolf and a bear, and who had accompanied Haslund on many a joyous trip among the Mongols. Then there were Dang-y-Dang and Tienshan, the two Mongols we had brought with us from Urumtsi. Snaps and Dang-y-Dang had got married, after quite a short engagement. But the little Mongol bitch kept other company as well. In particular she had been very interested at Shindi in Abdu Rehim's brown watch-dog. When her first litter of puppies came—black-and-white, brown-and-grey—we allowed three of them to live. The mother was touchingly devoted to her little ones; she had found a deserted fox-burrow in among the tamarisk cones, and there she brought them into the world. The Mongol Tomes, who was my cook, declared that it was a good omen for the pups to be born where there was water as well as vegetation and firing; and they *did* grow into fine dogs! Tomes himself was born on the highroad. His mother had been down at the river washing, the throes of labour came on her on the way home, and the boy was born there by the roadside. The lamas at the monastery of Kara-shahr—Tomes was brought up at Kara-shahr—interpreted this to mean: "The boy will be a great traveller." Their prophecy was not far out!

We had a welcome visitor one day at Kurban-chik in the person of Abdu Rehim, the headman of the village of Shindi. He was a traveller, like Tomes, and an extraordinarily interesting character. He knew Kuruk-tagh better than anyone, and was the chief of its biggest village, Shindi. It was quite a little place—it may have had fifty inhabitants—but Abdu Rehim, the Ak-sakal, enjoyed greater prestige than many a chief of a far bigger community. He was a positive Nimrod, and was often to be seen sitting discoursing to a listening

group about wild camels, tigers and bears, lynxes and boars, while generally someone sat beside him playing the dotar.

Abdu Rehim knew every inch of the country: every spring, every scrap of pasturage, every ore deposit, everything. He knew which were the fresh-water springs, and which were only slightly salt, so that animals could drink from them. He knew too when the winter ice, which forms in huge mounds round the springs and contains less salt than the water itself, came to an end. He was a born geographer, and he did us many a good service, just as he had previously helped our chief, Sven Hedin, and every other traveller who had visited his magnificent but inhospitable hills during the past fifty years.

This time he had come down to us in order to arrange for the shepherds up in the hills to send us some sheep; he had heard that we were short of provisions, and knew how unwilling his people were to sell to strangers.

Sven Hedin had instructed us to thank the old man for his help on many occasions, and we had brought him a splendid present, a samovar of shining nickel. I finished my gravity determination, the instruments were packed in their cases, and then we cleared my large yurt and made it ready for our festivities. Abdu Rehim was to be the guest of honour, and we also invited some friends of his who had come with him. Of course we had to offer them the Turki ceremonial dish, *pilau*. Saidul, the young boy who was so good at climbing hills and had such a gift for finding fossils—it was through Abdu Rehim that we had got hold of him—was to prepare it according to all the proper rules.

We assembled in the yurt. The stately samovar was carried in, and tea was served with many lumps of sugar. Norin made a little speech in Chinese, which Abdu Rehim also understands, expressing our gratitude to him and conveying a greeting from our chief, who in days gone by had also been his chief, and begged him to accept our gift as a



Children at Shindi, the home of Abdu Rehim.

keepsake. He thanked us with some emotion, laying his hand on his heart. The samovar was carried out and packed carefully under his personal supervision.

Once more we assembled in the yurt. A large cast-iron pot stood in the centre of the floor on an iron tripod. A roaring fire was made up, and most of the smoke went out by the hole in the roof, which was drawn up on the lee side, to give a better draught. As soon as the pot is hot, you drop in the fat. This is *kujruk*, the fatty tail of a sheep, chopped in pieces. It splutters and jumps. When all the fat has melted, the "greaves", or crackling, are taken out, and the fire is made up again. A fight ensues for the greaves, for they are a tit-bit, in their warm and tender state.

As soon as the pot begins to smoke, a few pinches of salt are thrown in, and then a handful of water is sprinkled over it. Pale-blue smoke rises up, and thus are the evil spirits driven out. Then comes the turn of the onions and carrots, which lie waiting at the side cut up in slices, and finally the meat is added. This is cut in pieces about an inch long, and when it has browned sufficiently in the boiling fat, a few cupfuls of scalding water are thrown in. This has to boil up, and then the rice is added, which has previously been washed in several waters, the last of them hot. All the black grains and dirt are picked out, and it is laid carefully in the pot with a long iron ladle. A little hollow is made in the centre on top and filled with rasins, rinsed in water; the lid is put on, and after it has boiled up, the rim of the pot is closed over with dough. The big burning logs are taken away and only the embers left, and in two hours' time the dish is ready to serve. Those two hours are normally whiled away with amusing stories and anecdotes, mostly in the style of and taken from the *Arabian Nights' Entertainments*. But as we knew no Turki worth mentioning, we entertained our guests in a different way, apparently to their satisfaction.

Caruso began with a resounding aria. Fleta sang, "Aye,

aye, aye". Brita Hertzberg gladdened our hearts with the Swedish folksong, "Bilberries in our paddock". Beethoven and Chopin were received with bewilderment but approval. A lively rhapsody by Brahms was applauded. And last of all Harry Lauder sang, "Keep right on to the end of the road", the song that "strengthened you for the road, increased your longing for what lay at the other end, and harmonized, in addition, with the beauty of wild nature", as Haslund described it.

The guests of honour sat on the tent mat in their long dark coats, *chapan*, and held out their hands towards the glowing embers. Their eyes were shining, this was a great moment for them. Wonder and admiration were written on their faces. The door of the tent was crowded with a group of eagerly listening shepherds, who had got wind of what was going on.

At length the food was ready. The beautiful old water-jug was handed round with a towel, and everyone washed three times. The white-bearded old Abdu Rehim blessed the food with outstretched hands in the light of the fading embers. It was consumed in silence. Again the old man raised his hands, palms upwards, and everyone followed his example, while he said grace in his deep, musical voice: "Allah akbär—Allah is great," and their hands passed with a caressing movement down their faces and beards. We got up and went out of the yurt, and as Norin and I stood at the door, the Turkis turned and thanked us: "Rachmät, chosh bolde, rachmät—Thank you, a very great pleasure, thank you."

They wrapped themselves in their long fur coats and lay down to sleep under the shining stars round the big fire on the terrace beside the camp.

Norin had taken down his tent, and spent the night with me in the yurt. Very soon we were both in our sleeping-bags. A low, caressing sound could be heard close by: it was Dang-y-Dang, licking her puppies. They had been present throughout

all the festivities, and they too had enjoyed the music. I patted the little lady good night—sleep well!

.
In a moment I was wide awake. What was that? On with my boots and fur coat. “Get up, Erik, hurry!” Norin obediently jumped out of his sleeping-bag, and we wrapped ourselves up warmly and crept out. On a little hillock close by, Abdu Rehim had spread out his fur coat on the ground and was chanting his morning prayer in his rich voice, his hands held high in the air, his eyes turned towards Mecca.

The sun was rising red above the horizon just where the hills melted into the plain of the desert. Far away to the south a low mist hung over the new river, Kum-darya. On the terrace below us lay the camels, on the lee-side, with white frost in their dark, soft wool. All was still and beautiful—music for eye and ear—a memorable moment not soon to be forgotten, a divine service.

CHAPTER V

Diplomacy and Lop Nor

FROM Kurban-chik Norin went south-eastwards and I to the south, while Abdu Rehim rode home to Shindi with his samovar. One of the young men who accompanied him offered to take it on his horse, but Abdu Rehim declined absolutely. No one but himself might touch the precious thing.

Dang-y-Dang and her puppies were given a compartment to themselves on the train—a fine big packing-case high up on a camel's back above the felts for the yurt. Snaps and Tienshan ran on either side. At the head of the caravan went Tomes, Lao Djao, and I with my cyclometer. On the first evening we encamped on the wide slope running down to the desert. It was a cold night, but it was the last of its kind. Spring began in earnest after that. The second day of our march was positively warm and the afternoon oppressive, which was a violent contrast. Little eddying whirlwinds, miniature windspouts, drove the dust up. Lao Djao told me that in each of those whirlwinds was an evil spirit, the soul of a wicked man. If you could get inside the whirlwind and lay your cap over the core of it, you would get the evil spirit in your power. What you were to do with it after that, I never understood.

That evening we reached Kum-darya, the new river, where I was to carry out some important place location and other work. The name means Sand River. A few years earlier there had been no water there, and the river bed was

known as Kuruk-darya, the dry river; now it carried 11,000 gallons of water a second, forming a broad, wide river. It was this that had brought about the change in the position of Lop Nor.

We had intended to make a trip in a few months' time to the lake itself, but never got the opportunity. Now that we are so close to it, however, seems a suitable moment for a brief account of the mysterious lake into which the mighty Tarim river flows, and the problem of its shiftings.

Lop Nor lake has long constituted one of the most fascinating of geographical problems. Maps prepared at considerable intervals of time have shown it at widely different places, and Ferdinand von Richthofen, the great German geographer and philologist, put forward the explanatory theory that the lake changes its position.

Richthofen had a devoted pupil in the person of the young Sven Hedin, who was preparing with intensive energy for his future work as an explorer. Even as a schoolboy he showed extraordinary clearness of purpose, and when he went to the university and heard Richthofen's lectures, he made up his mind that he would solve the Lop Nor problem. Before long the young man was out in the eastern districts of the Taklamakan desert, measuring the different levels of the old river beds, and studying the Tarim river and the lake into which it flowed. His answer to the problem was: the lake *has* changed position. But this was not all. Sven Hedin went a step further and prophesied in 1905 that the phenomenon would be repeated. The Tarim river, continuing its pendulum-like movements, would shift from the southern tract through which it then flowed, and return to its course in the north.

He was right. He was also fortunate enough to be himself the first to inform the scientific world that his prophecy had come true. Naturally his expedition wanted to explore the new lake. This plan, however, met with difficulties. The

Governor-General of Sinkiang refused to allow any work to be done in the Lop Nor district. In reply to our application for permission to go there, Norin and I received the following letter:

" I have received your letter, and have perfectly understood its contents.

" Gentlemen, you have shown great enthusiasm for your work, you have carried out geological investigations and made many discoveries. I much appreciate your work, and I understand that you now wish to take the routes to the north and south of Thian Shan which you describe in your letter, and that these journeys would represent the co-ordination of your different fields of work, and the consummation of your task. This is truly excellent, and I shall be delighted to afford you all the help that lies in my power.

" There are, however, certain difficulties in connexion with the routes you suggest. Should you decide to follow the main road to Khotan instead, these would be entirely removed, but Yü-li, Charkhlik and Charchan are not suitable places to visit at present, for troops of brigands from Kansu are roving along the frontier of Sinkiang. At Barkul, Hami and Lop Nor even, the soldiers stand as thick as trees in a wood, and your scientific work would be constantly disturbed. Even the song of the birds and the sighing of the wind is enough to alarm the soldiers and incite them to acts of violence. No one therefore can assume responsibility for the safety of travellers in these districts. The same applies to Altai, which is overrun by wild hordes from Outer Mongolia. Consequently you must not visit these places. On the other hand, there would be no difficulty whatever in the way of a visit to Bogdo Ula, Fukan, or Ku-cheng-tzu.

" With kind regards,

" Sgd.

" CHIN."



Governor-General Chin outside his yamen at Urumtsi



Tomes in his working clothes

It was obvious that he did not desire our presence at Lop Nor. When he talks about soldiers standing as thick as trees in a wood, one is apt to imagine an immense army, but a wood in Chinese Turkestan generally means one tree every fifty feet or more. The "army" that he described did not therefore alarm us much, still less so as we knew quite well that there were no soldiers at Lop Nor; there were no human beings at all for many miles round.

Norin telegraphed to Hedin to explain the situation, and the chief decided that the problem should be tackled from the east instead.

Hörner was instructed to set out westwards from Suchow with the Chinaman Chen to investigate the new lake. It was a difficult task, but he accomplished it brilliantly. I well remember when Norin and I received the letter from Sven Hedin describing their journey. "That is the finest thing that has been done on the whole expedition, that is the real Hedin spirit," said Norin, who was wild with excitement.

What had Hörner done that was so remarkable? He had gone by camel from the east through the desert straight up to Lop Nor. But it was not simply desert. In places they had to travel over salt-encrusted ground as hard as glass, full of crystals that cut through the shoes of the men and the feet of the animals. Every evening they had to tie up the camels and sew leather soles over the pads of their feet, to make it possible for them to go on at all. The tracks of the caravan were red with blood; they had no water for fourteen days. But they got there.

Hörner went round the lake, mapped it and made his geological observations, and set out on the homeward journey. That frightful desert had to be crossed again, but it was many times more difficult now, for to lack of water and firing had been added lack of provisions. In spite of illness and severe hardship, thanks to a will of iron and a well-trained physique, thanks to the skilful help of the Chinese geodesist, Parker

Chen, thanks to self-sacrificing and courageous servants, he made his way back.

Hörner and his companions not only accomplished the journey there and back—they did it all so quietly that they did not “alarm” a single soldier.

Herdsmen, however, soon discovered the tracks of the caravan and reported to the Governor-General at Urumtsi: “Sahib has been to Lop Nor, in spite of the prohibition.”

The next time Norin went to Urumtsi and called on its noble Governor, the latter said to him with some annoyance: “Sir, you have dared to go to Lop Nor in spite of my prohibition!”—“Certainly not,” Norin answered. He had actually had the foresight, with almost feminine intuition, to have his passport stamped in every town he had been through, and thus had irrefutable proof that he had been in quite different places at the time in question. The Governor-General examined the document, grew embarrassed and apologized profusely; there had evidently been a mistake. “Yes, people do talk so,” said Norin. The ridiculous idea that anyone could have gone to Lop Nor *from the east* never even occurred to the worthy Chinese.

Norin, however, knew very well who had been to Lop Nor. He also knew from the letters he had received that several matters remained to be dealt with there. And Norin was not merely a clever man; when he wanted, he could be positively deep.

He set off joyfully with a camel caravan by the direct road to Lop Nor, without giving a thought to the soldiers, the song of the birds or the sighing of the wind. He carried out his investigations at his leisure—although once more under difficult climatic conditions—returned to Urumtsi, and went to see the Governor-General.

Of course there had been more reports. “Sahib has been to Lop Nor in spite of the prohibition.” But this time His Excellency did not appear so annoyed. He said smil-

ingly: "Yes, I have had reports again, but people talk so much, I didn't pay any attention to them."

It was very obliging of him.

The last chapter in the saga of the extraordinary shifting of Lop Nor was written by Sven Hedin himself. He went back, while war was raging and the waves of fanaticism ran sky-high, in his seventieth year to that desolate but fascinating tract, and completed his scientific work, among other things making a map of the new river with its thousand bends.

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Viking of modern times, Sweden is proud of you.

CHAPTER VI

An Evening at Kara-koshun

WHILE Norin and I were travelling round the central and southern districts of Kuruk-tagh, we left my excellent Russian assistant, Pavel Vorotnikoff, at Shindi, the home of Abdu Rehim, carrying out meteorological observations which were of inestimable value to us, and enabled our calculations of height to be many times more accurate.

When April came, we had to begin to think of the return journey. Our passports for the Kuruk-tagh district expired on the 4th May. The three of us met at Nanshan-bulak, "The Spring of the Southern Hills", and from there Norin swung round towards Atmish-bulak and so northwards, while Vorotnikoff and I went together direct to the north. We were all three to meet again in the district south of Turfan.

Our first march brought us to a stretch of reedy plainland known as Kara-koshun, on which stood the simple house of Selim Bakhi, a white-bearded ancient with an immense family. He was himself to guide us farther on our way and show us the springs along the route. Being an old hunter—like his kinsman Abdu Rehim—he was well qualified to do so.

He ordered his sons to kill a sheep in our honour, and Vorotnikoff and I were ceremonially invited to the feast.

We set off in the dusk for the low house, taking the gramophone with us and a few records. On our arrival, I smuggled Vorotnikoff away to one of the windows to open the gramophone and put on a record, choosing one that ran for some time before it began to play. Just as we got inside

the house, the record started. The people had already heard tales of our strange black box that was so musical, and now it was carried in and duly admired; even the women of the household were present.

It is very rarely that one sees respectable women unveiled, but these people were so poor that they probably simply could not afford such luxuries as veils. After we had played a few records on the gramophone, Selim Bakhi, Ibrahim—his son-in-law—and one of the daughters, the well-grown Sainep Chan, went out. A little later they came back, and Ibrahim explained that since Sahib (I) had shown them such kindness, they wanted to offer us something of the same sort in return, and so the musical instruments were brought out: drums, dotars, rawaps, tingeltangels, and even castanets. Seven of the young people took part, sitting in a long row and led by Ibrahim at the extreme left. Most of them both played and sang. Then came the great surprise.

A space was cleared in the middle of the floor, and on it was spread a white Kirgha felt rug, beautifully thick and soft. Sainep Chan put on a funny knitted cap, pulled off her boots, and began to dance in her bare feet. She was dressed in a simple, full, ankle-length *chapan* of dark-red, hand-woven stuff, and she had no other ornaments than her long plaits of shining dark hair, which fell heavily almost to the ground as she danced, and a small blue iris stuck in under the cap above her left ear.

That dance was one of the most beautiful things I have ever seen, so simple but at the same time delicate and exactly harmonizing with the music. I suppose it was the spontaneity of the child of nature that made such a deep impression.

At the end of the dance she came forward and made me a graceful obeisance. In the corner over by the hearth stood her father and mother glowing with pride at their fine daughter, while they shifted the embers nearer to the large pan of pilau. The little girls peeped out with shining eyes from their corners

and wondered whether this was real courtship or whether it was merely a game!

The light was magical; it came from two small iron bowls, or *cheragh*, filled with oil. They have a lip in which the wick, of twisted cotton, lies and burns with a yellow, smoky flame. The smoke formed into fantastic shapes, and the shadows of the pillars and beams danced as the flames flickered. Each *cheragh* stood on a stand the height of a man, made in a simple geometrical pattern and covered with a dark patina from the oil drippings and fallen soot.

Vorotnikoff, who knew the Turki customs, whispered to me to tuck a note under the edge of her cap as a sign of my approval. I did so, reflecting meanly that for once it was just as well they printed their paper money in values of 1 liang (about ninepence at that time).

She took the money with glee, stuffed it into her bosom and danced again. The same flowing movements, never twice alike, the same gracefulness and true womanly loveliness. It ended with a pirouette, and she made her obeisance to Vorotnikoff. A nod of consent, he took a liang from my pocket unnoticed and tucked it under her cap with a few pleasant words. Everyone went wild with delight, and Ibrahim went round the whole company with his drum, singing:

Chong Sahib, the tall, has given a liang,
Kichik Sahib, the small, has given a liang,
Give a trifle too.

A great heap of copper coins with square holes in them was showered on the drum, which he kept vibrating the whole time.

When we came out into the open air, it had cleared and the night was extremely beautiful. In the camp a low moan was rising from the cooking quarters, where Lao Djang lay writhing because he had run out of opium; he had terrible pains in the stomach and could not sleep. Normally he was a

bright and cheery fellow, but he was useless now and unfit for any work. He had had to be brought here on one of the camels, green in the face and rolled up like a bundle, and the same would have to be done again to-morrow. When we reached Arpishme-bulak, he hoped to get his store replenished. I gave him ten drops of my opium extract, as I had done on the previous evening, and it may have eased his pain a little. I was sorry for him but angry with him too. Hummel had broken him of this miserable habit once—why did he want to start it again? And he was the very best of the servants we had left.

Tomes had just left us. He had to go back to his master in Kara-shahr, the Grand Lama Sin Chin Gegin Khan, to accompany the embassy that was to be sent to Peiping to fetch the bride of the young Mongol prince. My diary says: "Tomes is leaving—unfortunately. He was a good cook, a strong and useful man, and a pleasant companion." I had no notion then that nine months later I should have him with me again, and that he was to become the veteran of all my servants, not to be parted from me until we reached smiling Kashmir.

CHAPTER VII

The Hurricane at Bejan-tura

SALIM BAKHI had piloted us through the hills. We had crossed the depression of Arpishme-bulak. Lao Djang had got his longed-for opium, and a few forced marches had brought us through the hilly district south of the Turfan valley. We pitched our camp at one of its lowest points, Bejan-tura, on the reed-covered salt steppe which borders the slopes of the Sai to the south.

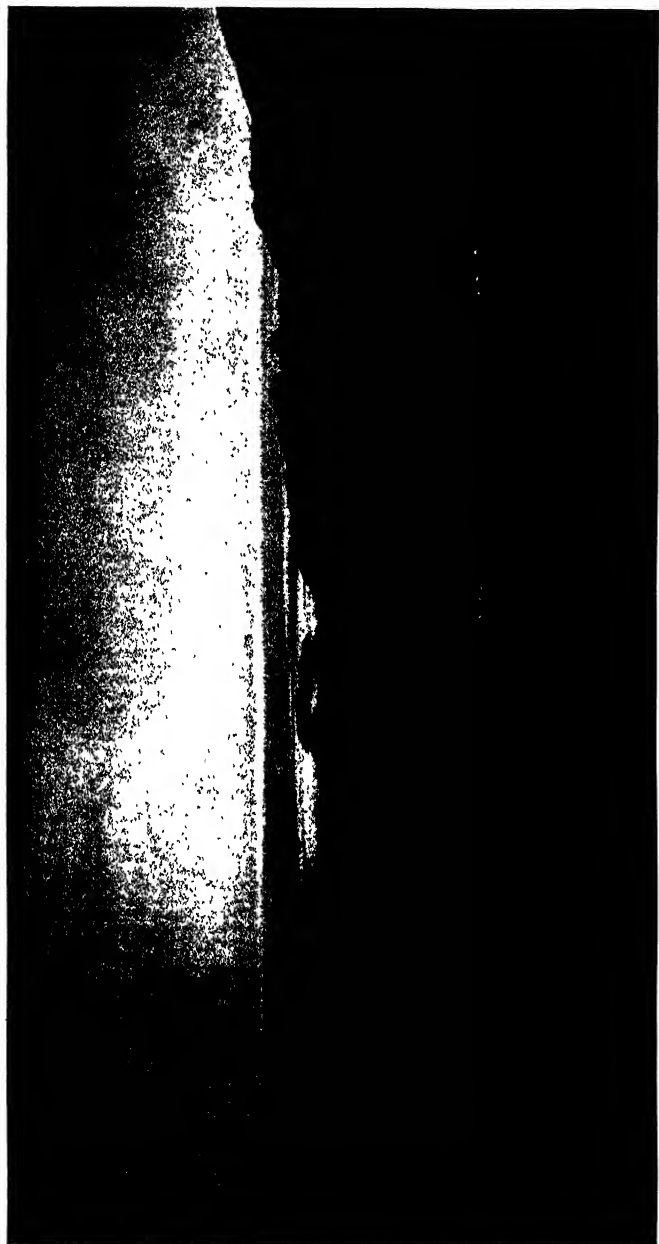
Bejan-tura was to me a particularly interesting place. Its position in one of the most remarkable areas of depression on the earth's surface, with the towering mountains of Thian Shan to the north and the Kuruk-tagh chain to the south, means that extreme conditions can be expected there both with regard to gravity and meteorological phenomena.

The force of gravity is determined by means of gilded, half-second pendulums of bronze or invar, suspended on agate edges. The time the pendulum takes to swing is determined with the utmost precision. By taking into account all such sources of error as variation in temperature, pressure, humidity, the varying stability of the ground, &c., and by using the most exact methods of measurement, it is possible to obtain results accurate to such an unimaginable figure as one ten-millionth of a second.

The instruments must, of course, be most carefully protected during the measurements. That is why I had a large yurt, instead of a small tent like Norin. Inside the yurt was a rectangular tent for the pendulums, made of felt like the yurt and lined with cotton cloth for protection against



*The magnificent camp of the Grand Lama Sin Chin Gegin Khan
The photograph was taken by himself*



We approach Bejan-tura

the dust, and inside that were the pendulums in a glass case, covered with two protective casings of leather. Beside this tent stood my wireless apparatus, specially constructed for me by a well-known expert, with which I could hear the time signals from Bordeaux, Nauen and Rugby. There were also chronometers, barometers, thermometers and various other instruments.

Long ago there had been people living at Bejan-tura, for it had a ruined house, and beside the spring was a trough, a hollowed-out tree trunk, from which the animals used to drink.

The yurt was ready, and all the apparatus set up. The meteorological station was on a small hill just beside us, and Vorotnikoff's tent at the foot of it.

The heat was oppressive, so that the air quivered above the sand. At two o'clock in the afternoon I took the time signal from Bordeaux—the one we hear in Sweden at nine o'clock in the morning. Then I took the readings of the pendulums, and all the other instruments one after the other. Time passed, and it was nearly four o'clock, when the Rugby time signal was due. I went to read the barometer just before it came through. What in the world? I must have made a mistake! No, I was right. The barometer had fallen a quarter of an inch since the last reading half an hour before. Had the instrument had a knock, or what could have happened? I rushed over to Vorotnikoff to compare it with his barometers. They too had fallen in the same way. Suddenly it dawned on me what was happening.

This was not the first time I had been in the Turfan depression. A year before I had experienced a terrible storm only a few miles away from the spot we were in.

Of course another storm was on the way now. Rather than run the risk of having our valuable instruments damaged, I decided to pack everything up. Lao Djang and a few of the others who were about lent a hand—normally I did

everything myself, but this time every minute counted. I had heavy packing-cases placed round the walls of the yurt outside, and strong ropes thrown over the roof of it and fixed down as well as might be. All loose objects were packed away. The meteorological station was fastened down by means of ropes running criss-cross and fixed to long tent pegs, which were driven firmly in. The place resounded with the blows of hammers on the massive iron tent pegs.

We went round to see that everything was in order. Over to the west lay a bank of cloud—quite low—threateningly black; otherwise the sky was gloriously clear and hardly a breath of air stirring.

It is a horrible sensation, that calm before the storm. Everything is quiet save only for a distant rustling sound. Yet you feel as though your chest were being pressed in, and every face is drawn. A *Kara buran*, the black hurricane, the desert hurricane, the terror of every caravan, is drawing near.

It was still warm, almost hot, but we had got out our fur coats, and Vorotnikoff had already put his on. He knew what was coming, we all knew. The anemometer was firmly nailed to a stout pole. We had not long to wait; the cloud was drawing closer, it seemed to stretch right up into the sky. The dogs had gathered together in a sheltered corner of the ruined house beside the camp. Did they know instinctively that that house was safer than the tent?

All at once the wind rose. Vorotnikoff began his notes. Another gust, then calm again. Then it broke loose in earnest. Everywhere had suddenly grown dark with the sand that whirled up and blotted out the sky. This was no storm, it was a tornado. The sand and wind drove and tore in every conceivable corner. The strain on the tent was terrific.

The velocity of the wind had gone up by leaps and bounds; it began at ten miles an hour, then went up to sixty, and then to more than the instrument could record. It was still increasing. What was going to happen?

We sat in a row inside the yurt, crouching together, and awaited events. The felt rugs that covered the roof were pretty worn, and in one place you could see daylight through one of the folds, where it had come in for constant rubbing during transport.

Bang! It had given way. A hole appeared the size of a child's head—but it was enough. The wind at last got a purchase. It was like an explosion. The cloth was torn to ribbons, and the strips whisked and lashed about. A few of the long poles that held the roof-truss snapped.

Vorotnikoff had kept coming in to report what was going on outside. The last time he came in creeping on all fours. It was impossible to stand upright any longer out of doors.

More and more of the poles snapped—obviously unless something was done the whole tent might collapse at any moment. Four men crept over to the ruined house, where I had noticed a beam, and we dragged this into the yurt to help hold up the roof-truss. Of course there was no knowing whether it would do any good, but it seemed worth trying. We got it up, but just at that moment a number of poles snapped. I roared to Lao Djang and Lao Djao to go out with some of the strongest of the men and try to hold on to the ropes, while the rest of us inside pushed two large packing-cases into the centre of the floor and laid the beam across them, and the remaining poles at right angles to that in a bundle. Then we let down the roof-truss on to the cross thus formed, just as the remaining poles gave way. Of seventy, only six were left. All my instrument cases were standing on the ground, and I prayed they might escape damage.

We sat shivering in our long fur coats while the furious, freezing, frantic wind raged on. Hour after hour we waited vainly for any sign of its abating.

Not until seven o'clock next morning did the storm begin to slacken. The rain of sand stopped, and it grew light.

Of the four tents, one remained, Vorotnikoff's. The cook-tent, which was relatively new, had been split in two. We had been so proud of our fine aluminium pots and pans, so easy to keep clean—if you wanted to—and so light. We wished now that they had been good old-fashioned copper or iron. They had blown clean away, and even the packing-case into which they had been neatly packed had vanished. We searched for them in vain; they must have been carried for miles. The yurt was simply a pile of splinters and rags.

The meteorological station had a list to port, but it was still *standing*. The recording instruments had gone on functioning until about five o'clock in the morning. They had stopped then because the pens could no longer move through the thick sand that had percolated in, even through the glass covers.

Our servants looked like a group of ancient mummies. It was impossible to distinguish one from another. All the lines and characteristic features of their faces were plastered over with sand, and all that seemed alive in these yellow-grey, corpse-like masks was a pair of red, inflamed eyes. In this respect caution was necessary. The handfuls of sand that we scratched out of our eyes might easily have carried some infection, and now when the whole eye was a mass of little cuts, any infection would have been particularly active and dangerous, so I put some drops of argyrol into everybody's eyes.

The worst disaster happened to the animals. The camels had thinned off recently, and to help with the transport we had hired twenty sturdy donkeys, which were owned and looked after by a Tungan and his fifteen-year-old son. The father had gone in to Turfan on some private business on the day before the storm, and was not expected back until the following morning. The boy had been alone with the animals. I had forgotten all about him—probably thought that Lao Cheng, the dry old Chinaman who was our head camel boy,

would have kept an eye on him. But such was not the case.

We soon found the boy. He was lying among the remains of the kitchen-tent, weeping uncontrollably. What's the matter? Up with you! Where are the animals? Where are the donkeys? A gesture out to the open was the only answer. They were gone. Not all of them; three remained.

Under cover of that raging storm and impenetrable darkness, undeterred by the cold that petrified us, some hungry wolves had made their way to the camp. Just beyond the enclosure where our camels were tied up for the night lay the mangled corpses of three donkeys. When the herd was rounded up at last—they managed to find all the remaining seventeen—two others were found to have been attacked.

In our happy childhood's days we learnt to love the wolf in the wonderful tale of Mowgli. But Akela, the big grey Lone Wolf, and the tender parents of the jungle boy, have little in common with the wild beasts that forage in the hills and deserts of Chinese Turkestan.

CHAPTER VIII

A Severe Temptation

HOW was I to get to my pendulum station now? Luck was with us in our misfortune, and the ruined house offered a solution to the problem. We dug out the sand which had collected there in the course of years, and made one of the "rooms" fit for use. It had no roof, but the felts from the yurt and the remains of our tattered tents provided a substitute. I made my observations there, and welcomed Norin there on the 20th April.

"How did you get on the day before yesterday?" was of course the first question. He had been up in the hills and had a good deal of wind, but nothing at all unpleasant. Norin is a wise fellow. He never lets himself in for any standing long-jumps or other such adventures. In addition he has a lucky star, and almost always comes unscathed through any cataclysms of nature.

The evening before we left Bejan-tura, Norin, Vorotnikoff and I lay in my former pendulum room and told each other ghost stories. The storm was howling outside again, giving the correct, sinister atmosphere, and Vorotnikoff told us an amusing tale. There were no ghosts in it, at any rate no evil ones, but it had its points none the less.

He had been the previous year at Chik-tam, not far from where we now were, working at one of Dr. Haude's many meteorological stations. His thorough knowledge of the Turki language and perfect acquaintance with their customs made him popular among the people there. He had also

been Hummel's assistant for some time, and had acquired a fair amount of medical lore. But he had noticed that a little knowledge of human nature was often of far more use than having the whole pharmacopœia at your finger-tips, and he put his knowledge into effect and became a great "medicine man" in the district.

One day a solemn deputation arrived at his tent, which was pitched in the courtyard of a caravanserai. The deputation consisted of the white-bearded Abdu Rachman Ak-sakal, the village elder, Sherip molla, the priest, and a few more of the local leaders of society. In accordance with the dictates of polite usage, they sat down in a ring in front of the tent, and tea was served and imbibed in silence. The bowls were refilled by the watchful little Turki who acted as waiter. Vorotnikoff, as the well-bred host, said nothing, but contented himself with putting at least five lumps of sugar in every bowl, which is the essence of politeness and, even if it does not taste good, shows great respect and is appreciated accordingly.

Then conversation was opened. It was established, little by little, that Vorotnikoff was in excellent health and his guests also, that the weather was fine to-day but yesterday's storm had been severe, and "we hope that Allah—praised and glorified be his holy name—will grant us sun and warmth again to-morrow". After this had gone on for a while, a general silence fell, until the Ak-sakal took his courage in both hands and began to explain the errand on which they had come. It was indeed a delicate one.

Vorotnikoff had already been there two months, and he had not yet chosen himself a spouse. This was much to be regretted. It was due, of course, to the fact that the exemplary young man had not sufficient courage, and so they had come to give him a helping hand.

"Our old molla," said the Ak-sakal with a gesture towards his friend, who laid his hand on his heart, "has a large family.

His sons are strong, and wield the hoe and the spade with the well-directed energy that characterizes the good farmer. His daughters are the flowers of his garden, and among them are both peaches and poppies, all of the same gentle loveliness, the same soft curves. Their virtuous mother is plump and beautiful. With such a father"—another gesture, similarly answered—"they will undoubtedly grow into similarly fruitful ornaments for whoever is happy enough to plant them in his garden. As you, noble sir, are without parents or kinsmen or friends who might mediate for you in the matter of winning a desirable bride, we have decided to come to your assistance in the difficult dilemma in which you are undeservedly placed.

"In consideration of the great services which, with never-failing interest and invariable generosity and self-sacrifice, you have rendered us and our friends, Sherip molla has decided to present his youngest daughter to you as a worthy gift."

Vorotnikoff is clever, and far better versed in flowery language than were the worthy gentlemen who honoured his tent with their presence. He replied:

"Wisdom flows from your lips. Your venerable beard, your furrowed cheeks, tell me that you have reached the age at which no word ever passes your lips that has not been weighed in the wisdom of your mind. Only the fool trusts blindly to his foolish heart.

"Sherip molla's name is known and honoured. Every man who values wise advice hears *his* opinion before he takes a decision. *His* wife is a wise man's wife, *his* children are precious jewels the likes of which are not easily found. *His* house is rich. The humps of *his* camels are always higher than those of others. The wool from *his* sheep is the softest. The apricots from *his* trees yield the kernels which no well-spread guest-table can be without.

"Your kindness is great, greater than the desert, greater

than your beard! Your words are wise and well-considered. My heart is already warmed at the thought of the great happiness which is in store for it.

"Yet reverence for old age and the ties of a promise—hard and bitter fate—compel me to renounce this undeserved favour. When I left my parents' home, my white-haired grandmother exhorted me saying:

" 'You are young and inexperienced. The choice of woman is a mystery not given to man, least of all to one who is as young as you. When the time comes for you to take to yourself a wife, I as the head of the family will arrange the matter for the family's best.'

"You will readily understand that I cannot therefore act as my heart tempts me to, but must obey the command which the Almighty has directed me to bear in mind."

Flattered and not in the least offended at the refusal of his offer—the reason was the best imaginable, and the words that had been spoken about his house would be carried far, to judge from the number of listening heads in the bright sunshine outside the door—the molla replied:

"The wisdom of your words and the reverence of your thoughts far exceed what is usual among the youth of these parts. May the maiden chosen by the Ancient One become the star of your happiness. May she light your path and be your obedient slave, and the stern castigatress of your children for their good. And now let us return our humble ways, remembering your fair words with gratitude. Salaam aleikum—Peace be with you"—"Aleikum salaam—With you be also peace!"

.

But with us there was certainly no peace that night. Norin suddenly said: "Was that something scratching outside?" We all three lay and listened. Yes, there it was again. We each had a pocket lamp beside our beds. Three beams of light played along the bare walls, and there we had the

disturber of our peace—a scorpion. Vorotnikoff caught it with a pair of tweezers, and it was soon lying in a bottle of spirits, in company with snakes and other vermin, while we pulled our sleeping-bags up over our heads—and dreamt of our wise grandmothers.

*in the
south of*



CHAPTER IX

Spring Idyll. Back in Urumtsi

WE moved west towards Urumtsi, following the line at which the slope of the Sai joins the flat plain, heavily encrusted with salt, which forms the bottom of the Turfan depression. For the first day's march we all kept together, and passed a number of old grave-mounds, presumably from the Stone Age. After that Norin and Vorotnikoff and the whole camel train took a little-used short cut, while I went round by Toksun and Turfan and thence along the main road. Almost every day we had severe storms. Our eyes ached. The sand gritted between our teeth as we ate. It was terribly trying at times.

The instruments and other baggage I had on two large, two-wheeled carts called *Goldegodong-arabas*, drawn by four horses, three of which are simply draught-horses, while the fourth guides and draws the cart. The vehicle has been given that resounding name on account of a massive brass bell with a heavy tongue which hangs below the axle-tree and rings an incessant *gol-de-go-dong*.

The Turki love of music is not the only reason for their taking these enormous bells on their journeys. When there is a raging storm and visibility is reduced to five or ten steps, the head driver, the *arbakesh*, does not walk beside his cart, but takes the yoke-line in his hands and walks in front of the animals, listening to the bell of the cart in front of him. Consequently in bad weather one will often see long caravans of carts, with someone walking at the head who is well acquainted with the road and can find his way even

under difficult conditions. The landmarks he uses are hardly noticeable to a European. He has an inborn sense of direction that we may well envy him, but which is compensated by the ability, which the native in his turn envies us no less, to read and draw a map with the help of a compass.

At Daban-cheng a river cuts through the mountain range of Charguz-tagh, carrying water from the topmost peaks of Bogdo Ula down to the Turfan depression. Strangely enough, the water from the melting of the glaciers *north* of the highest peaks also flows southwards.

I had long ago settled upon Daban-cheng as a suitable place for measuring the Bogdo peaks. We encamped therefore at a spot which had a clear view northwards, and I started my measurements immediately, interrupted every now and then by storms. On the afternoon of the 30th April, 1930, I finished my work, and wandered down to the camp. I had been lucky—the peaks were already hidden again by clouds of sand driven up by the strong wind. In the evening the wind dropped again, however, as suddenly as it had risen, and we had a glorious night.

A pleasant fragment of our life is recorded in my diary for that day:

“Welcome, Spring! Sad to say, I cannot greet you with any May blossom, but I saw a bouquet on the road to-day which must have been meant for you, perhaps also for a Swedish traveller. It was golden-yellow taraxacum and sky-blue iris, standing glowing in their beauty and nodding on a green patch in the middle of the desert.”

On the 3rd May we encamped at Chi-Chi-Tsao, a little retreat a few miles from Urumtsi. That evening I sat and meditated on the future and the past, and my thoughts were reflected in my diary thus:

“To-morrow we shall be back in Urumtsi. It is rather exciting to get back. Not that we shall have any real rest there, and strangely enough we do not feel the need of it,



Sky-blue iris



The burgomaster Ma-hsien-kuan

although we have had a strenuous time—particularly latterly with between four and six hours' sleep. It is funny that one can make up for sleep with food, at any rate to some extent. There is nothing like three eggs and a few juicy beef-steaks at five o'clock in the morning. Apropos of food, it will be marvellous to get potatoes again! I only hope I shall not catch any illness. We come from places where everything is clean, or rather where the dirt is clean, straight into this horrible cesspool of filth, the chosen city of intrigues. Ugh!"

I arrived about twelve o'clock on the 4th May, the very day my visa for travelling in Kuruk-tagh expired. Norin had arrived the day before me.

CHAPTER X

A Chinese Dinner. *Ch'ing-ch'ih-fan!*

URUMTSI again. A sharper contrast to the life we had been living for the last few months can hardly be imagined. Visits and dinners, entertainments of every description, all the time. Norin was bored, but I, being a sociable animal, found it enjoyable, at first. Who would not want to go to a real Chinese dinner?

But it must be remembered that we were not in Peiping or Nanking. The refined manners and exquisite food customary in these places are not to be found in Sinkiang. What would the tender greens of early spring look like, for example, after an eight months' journey through the desert? Few of the many things necessary for the perfect Peiping dinner are obtainable in Urumtsi. A great many of the ingredients come from the sea, whereas only dried things can be brought here. Still, our excellent Chinese cook Ta-tse-fu always managed, with the resources at his disposal in this out-of-the-way place, to prepare a tempting dinner.

One day a well-dressed Chinese servant was sent to us by the burgomaster of Urumtsi, Ma-hsien-kuan, who was showing his kindly interest in the Hedin expedition by inviting me to be the guest of honour at a dinner party. The man carried a case containing a document about eighteen inches long and six inches wide, inscribed with exquisite gold lettering on red paper. The writing begins at the right-hand top corner, and runs downwards. First comes the name of the place and the date. The host has chosen this day for

his banquet because friendly stars have shown him that it is a lucky day for his guests.

Then comes the invitation itself. "In your honour I have had my glasses thoroughly washed," and there follow the names of those who are invited, in order of rank. This list is carried round to all of them in turn, and each writes his reply beside his name, such as "Accepts with thanks", and his signature. There is no need for anything more. Sometimes the reply will be longer, such as the perfectly correct form of refusal: "Unfortunately I expect to be ill on Thursday and cannot therefore accept your immensely kind invitation."

On the Thursday afternoon the same servant returns and with a polite bow issues the reminder: "To-day my master awaits the great privilege of receiving you as his highly honoured guest." This reminder is obligatory, and is generally given one hour before the time appointed for the dinner.

The *mapa*, or high, two-wheeled, springless carriage with its colourful and scrupulously clean body of dark-blue silk, arrived for me, and Lao Djang, my interpreter and servant, helped me up. I sat cross-legged above the axle-tree and jolted along, well concealed from the eyes of the curious. When we stopped, Lao Djang reappeared with a little pair of steps to help me down, and then took my large, elegantly inscribed visiting-card and held it in front of him with both hands on a level with his forehead, so that everyone could see who was coming as we made our dignified entry.

Ma met me at the first of the three great gates. We greeted one another in the Chinese manner by bowing three times in silence and raising our clasped hands solemnly to our brows, and then moved together to the next gate. As etiquette demands, I stood back there for Ma to go through first, but he answered with a gratified but firm gesture of refusal, "After you," and I led the way. The same ceremony was repeated at the next gate, and likewise at the door which

finally led us into his residence. Inside we bowed to each other again, inquired how we did, and so on. As I was the guest of honour, I arrived a few minutes late, and the others were already assembled.

The master of ceremonies, a decorous old servant with a pompous manner, read out the first name on the invitation list. I advanced, and the smiling Ma motioned me into the next room, in which was a round table laid for twelve persons. The host was placed nearest the door, and the guest of honour opposite him; the places close to and beside the host are the least honourable. The table was laid with a simple white cloth, no flowers or other decorations, only the dinner service. This consisted of small round porcelain plates, something like our European ashtrays. Beside each plate lay the inevitable porcelain spoon and the two chopsticks of precious ivory inlaid with beaten silver. In front was a jade goblet, and at the side were little silver bowls full of salted almonds, earth nuts, and sunflower seeds. These taste delicious, and the inexperienced foreigner may be tempted to eat a lot, but after a little while he is consumed with a terrible, raging thirst which must be quenched. And the only drink to be had is warm brandy. The whole idea of those salted almonds is to increase the guests' alcohol consumption, as it is reckoned much to the credit of the host if his guests get cheerful.

Ma took my goblet in both hands, raised it to his forehead, and set it down again in its place. I stood beside him and responded to his attention by also raising my hands to my forehead. He took my chopsticks and repeated the ceremony with them. Finally he took my high, four-legged stool and set it straight. You sit with your feet hooked into the crossbar between the legs, lest they should get cold on the damp stone floor.

Then Ma turned to me, again raised his hands, and I raised mine too in time with his to the same level. Raising your hands to the level of your forehead means that the person

you are greeting is greatly your superior. Raising them merely to the level of your eyes means that you consider yourself the equal of the other person. Merely to raise them to your mouth means that the other person is of no account. It is easy to tell your host's opinion of you by his method of greeting.

The name of guest number two was called out. Hung-teng-ko was led in by our host, who assured himself that his goblet too was dazzlingly clean, raised his chopsticks to indicate his pleasure at seeing his guest, straightened his stool, that Hung might find it comfortable, and finally they bowed three times again.

Tsa-ko-chang came next. While Ma occupied himself with him, Hung-teng-ko and I began our part in the elaborate ceremonies. With an eloquent gesture I begged Hung to be so kind as to occupy the place which Ma had assigned to me, but which I asserted was a thousand times too distinguished for my insignificant person. Would not the illustrious Hung take pity on me and occupy the place which had indeed been offered me with kind intentions, but which was far beyond my simple and humble pretensions? Hung replied politely that Ma, by virtue of the wisdom which he, our brilliant host, possessed, knew well that the blue-eyed flower of the occident, who was to-day an honoured and esteemed guest in his house, was a sun that far outshone all the moons he had invited in order to show off its brightness. And the mere thought that he, the humblest of all the guests of the occasion, should venture to occupy my place, was as far from him as my prosperous homeland was remote from his poor and miserable country.

Tsa-ko-chang had been introduced, and Ma was just busy with his brother in office, Dju-ko-chang. I turned instead to Tsa. "Will you have the extreme kindness to occupy this highly honourable place? I have offered it in vain to Hung-teng-ko, the wise and learned."—"His answer is mine. The wise and learned Hung, as you so rightly call

him, is infinitely superior to me in his exalted position and the high repute of his family. If he has refused your most generous and for him flattering offer, how should I, who only know a fraction of the poetic symbols with which Hung, like our much esteemed host, is familiar, how should I occupy the place which Ma—the learned interpreter of a thousand writings—has reserved for the pearl of wisdom who to-day honours his house?" I resigned myself and spent my time watching the gentlemen Hung and Tsa going through these same formalities with each other and with their neighbours. The leading in of the guests, which at first had proceeded with slow dignity, continued at an ever-increasing speed as their importance decreased.

At last we were ready. "*Ch'ing-ch'ih-fan!*"—Please begin! Everyone sat down in the place assigned him by the "wise and learned Ma". A brass pitcher of brandy was carried in, standing in a bowl of almost boiling water. The goblets were filled, our host raised his and said "*kan pei*"—empty your goblets—and we all tossed it down, afterwards holding out our goblets upside down, to show that we had really followed his instructions.

The first course was something in the nature of a salad. A number of small dishes were placed on the table, four of them containing different kinds of spinach, the others salt tongue, salt ham, chicken cut into small pieces, different kinds of seaweed, and so on. Everyone helped with his chopsticks to pile up the contents of the various small dishes in a large bowl which stood in the centre. The host himself poured gravy and vinegar over the mixture, and finally obliquely-cut dice of so-called "rotten" eggs were dropped in. It was a somewhat heterogeneous combination, but tasted quite good. The eggs were particularly savoury.

Dish followed dish, from the European point of view in wild disorder, with every now and then a sweet, followed perhaps by fish again. Everything was eaten with the same

chopsticks, all sauces and soups were sipped from the same spoon. The food is so well cut up that one never has need of a knife.

Someone has said: "Only Frenchmen and Chinese eat delicacies, and the Chinese eat nothing but delicacies." Taste is, of course, a highly subjective matter, and opinions as to Chinese food are often diametrically opposed. But some of their delicacies are undoubtedly of that degree of excellence that there can be no two opinions about them. Among these are consommé with dumplings, which are dropped in and cooked up with the soup at table, in a copper utensil something like a samovar; and above all steamed duck. *That* is the climax of the whole dinner. It is brought in and placed in front of the host, who nonchalantly "carves" it with his chopsticks without looking at what he is doing. It is so tender that it drops to pieces under the chopsticks, and it tastes like a dream. Much of the subtlety lies in the sauce, which is flavoured with mushrooms and has a glorious aroma. Another delicious dish is crisp, sugared waterlily leaves, fried in deep fat.

Chinese ceremonial dinners with all their endless courses are not expressly designed to still the pangs of hunger. The idea is simply that the guests should have something pleasant to occupy themselves with and something nice to put in their mouths while engrossed in conversation. The drink is of very low quality—but the quantity!

The last course of all is boiled rice, served in small individual bowls, often with some sweet syrup over it. Of all the other dishes you can eat as much or as little as you please, but the rice must be eaten up to the last grain, if you do not want to offend your host. When everyone has finished, they all get up together, say their thanks, bow, and go out, accompanied by the host as far as the outer gate, where the guests stand in a half-circle round their host and bow. After that they all go their separate ways amid loud and repeated eructations, to demonstrate their extreme satisfaction.

CHAPTER XI

Bogdo Ula—the Hill of God

NORIN was ready on the 3rd July, 1930, and set off happily on his journey southward towards Khotan. On the 26th of the same month I went up to the Bogdo hills to spend a month in the most beautiful part of all Sinkiang. Vorotnikoff was detailed off to Chukur-chak to fetch a consignment of new instruments which were so delicate that they had been brought by hand the whole way from Sweden.

The heat in Urumtsi was terrible. Nor was it any better on the first two days of our march, but the third day brought us into a region of shady vegetation. We went higher and higher, and the Kirghiz lent us strong oxen to help us over the pass. On the 30th we reached the mountain slope, covered with typical alpine flora, on which we were to set up our headquarters.

In the absence of Vorotnikoff I had a fifteen-year-old Russian boy, Sergei Botwin, to help me with the meteorological observations. He was a quick lad, and spoke fluent Turki and a little Chinese in addition to his mother tongue. He was full of ideas and always up to something. The first thing he did was to spread a tale in the camp to protect us against the too lively interest of the Kirghiz, who are given to petty theft.

“Sahib has in his yurt a dangerous abomination called electricity, and there is another in the meteorological station up on the hillside there. Only one who is anointed with a special kind of precious oil can approach the magical thing unhurt.” With eloquent gestures and lively imagination he

described the dangerous electricity to the listening Kirghiz as a savage monster, a close relation to the Chinese dragon. The comparison was both diplomatic and apt. The Chinese identify their dragon with the lightning, and relate that the dragons spend the winter dormant under the ice of the lakes.

We were working in idyllic surroundings. While the pendulums were swinging, our servants would gather wild strawberries and mushrooms down in the wooded glades round the Taoist monastery, or climb up to almost inaccessible rhubarb plants on the rock faces and bring home wonderful juicy stalks. Every day I had freshly-made jam on my "table". Milk, cream and butter we got from the Kirghiz tent just beside the camp. Thanks to the wonderful pasturage on the hillsides, these products were excellent of their kind.

From the meteorological station we could see the sheep being driven out to pasture early in the morning. All night long they had lain close against each other to keep warm, while the dogs, their faithful guardians, remained on the watch to see that no wolf should get them during the dark, silent hours when the people in the yurt were asleep. When the sun rose above the horizon, the shepherd, dressed entirely in skins, would come and drive out his flock, the animals spreading out fanwise over the green carpet. The bright colours were a joy to look at.

More beautiful even than the morning was a beautiful evening. The view from the camp then was impressive to the last degree. The topmost peaks in the eastern quarter, covered with ice and snow, glittered in the last rays of the setting sun, and the ice crystals and masses of snow reflected the falling light with a strange splendour. The sun had by that time long been hidden from us by the hills to the west. Its light would fade from the peaks one by one until at last only three majestic summits shone out above the enormous range. The sun sank, and the mountain slopes that had glittered white a moment before turned glowing red. The

colours shifted every moment, until in the end a deep violet shade gave way to the sombre blue of distance. Closer at hand lay the soft green shadows of the dark, solemn woods and the joyous emerald of the meadows. To the south-east the rugged rocks of Maiashan towered towards the skies, too high for any vegetation. To the north-east lay the oval lake, dark, gleaming, almost black, like the eye of a cyclops. Yurts were scattered here and there. A flock of sheep would be driven home by its shepherd. From the monastery on the hillside a column of smoke rose almost vertically. Soon the monks would be assembled by the old, white-haired abbot for their evening prayers.

Mountain-tops always exercise a magnetic attraction, and I fell readily for the temptation to make a climb. Sagunduk and Nogoman, two Kirghiz who had previously been employed, with their well-trained pack animals, by Dr. Haude, acted as my companions. Four oxen and a few horses were all we needed for the march to the foot of the mountains. We crossed the river which feeds the monastery lake, and followed a valley through the bottom of which ran another swift river. On the second day we left the wooded regions below us, and the flora became more and more sparse. Some of the plants that did grow were all the more interesting. One in particular, which the Kirghiz collected, possessed a remarkable quality. If a man's wife had no children and he gathered some of these queer, grass-like flowers for her, infallibly one year later she would have a *son*. I told this story to a friend in Urumtsi who had been in Bogdo a few years before, and he pointed to his little boy and said: "Probatum est."

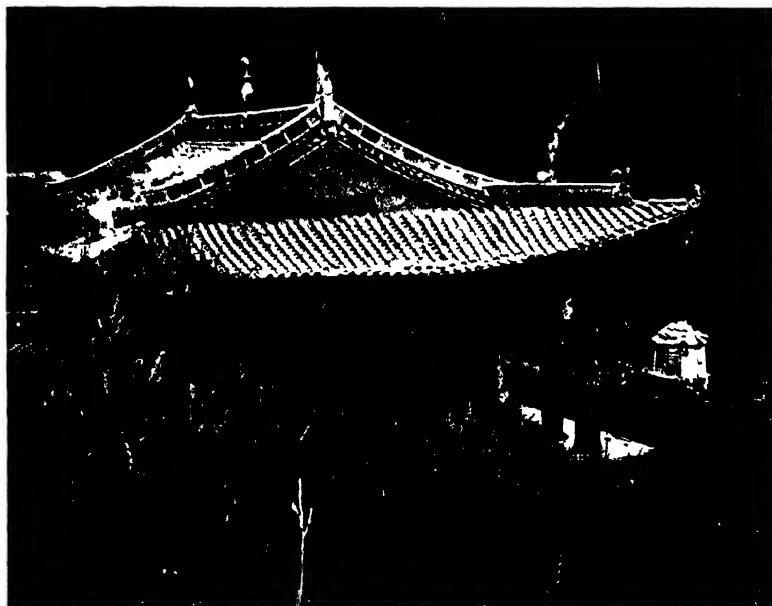
Every day we toiled up with the theodolite to high promontories, and little by little entered the details of the monastery lake on the map. We pushed on nearer and nearer to the summit, but the highest point we reached was 13,500 feet. From there we had a clear view over the peaks and glaciers of the main mountain range. To reach the summit



We were working in idyllic surroundings



I had taken a photograph of their yurt on the way up



One of the Taoist monasteries of Bogdo

itself would have needed a professional mountaineer with full equipment of picks, axes, ropes, and so on, and with proper guides. The Kirghiz could not help us here, as they regard Bogdo Ula as a holy mountain which must not be profaned.

On the way down we decided to climb a peak we had already measured, about 12,600 feet high. It was a difficult ascent, and at the end of it we were unlucky enough to have bad weather, so that we could see nothing of what we wanted. The whole view was obscured with clouds, and we had to return to the valley, having climbed in vain.

It began to rain. The river became a raging torrent covered with white crests. At dusk, in pouring rain, we reached a Kirghiz tent, and rather than risk trying to get down to the camp itself, another six miles farther on, we decided to appeal to the hospitality of the Kirghiz. They regarded us as guests sent them by the Lord, as the weather was so bad, and received us with open arms. I had taken a photograph of their yurt on the way up, and we had had a little chat on that occasion; now we had plenty of time for more. Altogether eight people slept that night in the little yurt, not to mention some of the more delicate lambs and a calf. It was crowded, but the atmosphere was happy. The man killed a sheep, which his wife cooked while he sang us songs and told us of their customs.

They live principally on milk in various forms. Bread is the rarest delicacy to them, so is rice. In the autumn they slaughter a few animals, cut the meat in strips and hang it to dry round the roof of the yurt, where it also gets a little smoke from the fire. The milk they use to make different kinds of cheese, which they soften in their tea during the winter. Every household possesses a large wooden mortar in which the brick-tea is pounded up, before being dropped into boiling water. Salt and milk are added, and the mixture is left simmering on the fire. The longer it draws, the better it is.

In the winter the Kirghiz move to the valleys lower down, where there is always good pasturage even during the cold season. A heavy snowfall—such as frequently occurs in March and April—may be a terrible misfortune to these people. Occasionally whole tracts are covered with snowdrifts many feet deep, and the animals can find nothing to eat. If a storm comes then, the animals have little resistance and the result is often disaster. But then, of course, the price of meat goes up to double or more, and so the people get some compensation for their losses.

Now and then the Kirghiz send a caravan down to Tsai-Woa-Poo to fetch salt for their sheep. Without salt the meat, and above all the fat, of the animals would not be of the high quality of which the shepherds are so proud.

During the night wolves howled outside. They are always about when the weather is stormy. At the request of our hosts I fired a few shots with my Browning to frighten them. The shepherds maintained that just the smell of gunpowder was enough to keep them at a distance. The rain went on deluging all night and again next day. About midday a powerfully built Kirghiz came up to our tent. He had climbed all the way from my camp to ask what they were to do down there, and find out how we were. It is a mystery to me how he made his way through the torrents, though he was a tall, strong fellow and carried a staff. When he came in to us in the yurt, he was so hot that his clothes steamed. He sat for a while by the fire, drank a bowl of tea and ate a piece of dried sheep's meat, got his orders, and then went back by the same dangerous way he had come, without receiving any harm. It takes strength and courage to do a thing like that, and the union of splendid physique with unwavering determination is always an inspiring thing to see.

When the rain at length ceased, the streams fell almost as quickly as they had risen, and we were soon able to return to our own tents.

Another day, and we reached headquarters. Professor Yuan joined us there, and we spent a few very pleasant days working together. One day we paid a visit to the monks in the monastery. It was an abode of peace and happiness.—Now the beautifully laid-out edifices are razed to the ground, and the monks driven out, perhaps killed, in the waves of revolution that have swept over the country these last few years.

The oldest of the monks, who kindly invited us to a dainty meal, was a particularly fine type. He was a highly educated man, who had known both social and political success, but had retired to this place in his declining years. It is said that the former Governor-General often used to send for him to ask his advice and discuss religious problems with him. He was dignified and handsome in appearance, and his eyes shone with wisdom and kindness. He is a figure one remembers with pleasure.

Yuan went back to his dinosaur remains, and the whole of my camp was moved down to the foot of the hill, while I myself paid a lightning visit to Urumtsi to arrange some business affairs. My stay in Bogdo concluded with a journey along the northern boundary of Thian Shan to Ku-cheng-tzu, a monotonous stretch of country.

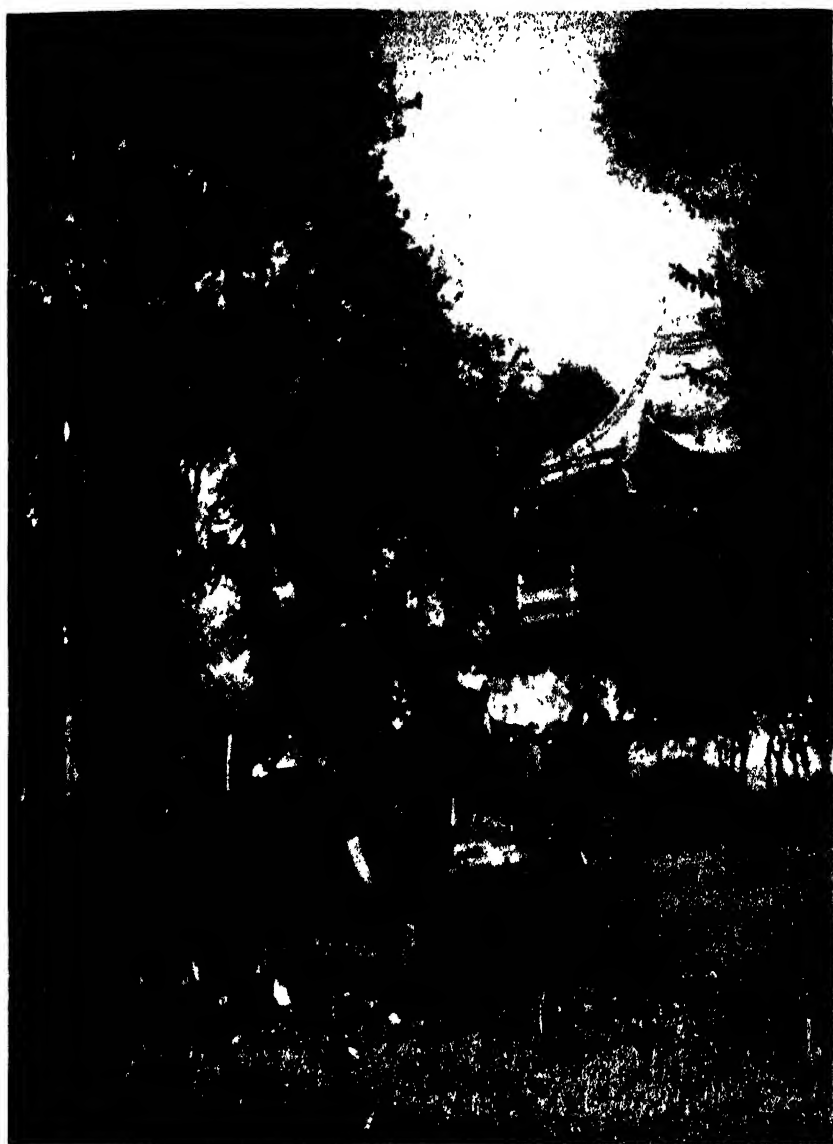
Traces of earlier habitation are frequent along the road: ruined houses, overgrown fields, and dry, silted-up irrigation canals. At the end of the last century there were serious disturbances in this district—known as the Tungan rebellion. The population of the province was decimated, and it is said that people grew so mad with hunger that they ate their own children. But the birth-rate is high in these parts, and a healthy young generation quickly grows up after a tragedy even of such dimensions.

Immigration from the east of China proper also took place on a large scale. The province is large and rich, and under peaceful conditions easily provides bread and shelter

for anyone with enough adaptability—until another spark is dropped in the gunpowder, and the flames of revolution blaze up again.

Ever since 1932 the country has been the scene of bitter struggles. A civil war is always horrible at the best of times, but when religious fanaticism and racial hatred also enter in, it becomes ten times worse, and the province has suffered cruelly as the fortunes of war wavered between the Chinese, the Turkis, the Tungans and the Kirghiz.

The Mongols have withdrawn among the hills and refuse to give their support to any of the warring parties. Unfortunately they have lost their foremost man, who died a victim of treachery on the part of the Chinese Governor-General. Sin Chin Gegin Khan would have been strong enough to put down the rising that brought about the war, but the opium-ridden Governor-General was not. He fled to the East, where he is now repenting his faithlessness in a prison cell.



The Mongol prince Sin Chin Gegin Khan.

CHAPTER XII

Difficulties

ON the 20th September we were back in Urumtsi. It was a joy to see all the new instruments that Vorotnikoff had fetched from Chukur-chak, and now the thing was to get ready quickly to set out on our journey southward. I therefore called immediately at the Governor-General's office, where I hoped to see His Excellency in person to get a visa for the journey to Khotan, but I was informed that he was busy. They would let me know when he could receive me.

I was admitted on the 9th October. After the usual polite formalities I brought up my request for a visa, reminded him that we had discussed the matter before and that he had promised to arrange it, and said that we were anxious to set off as soon as possible. But I was met with a flat refusal. He said he had received instructions from the Foreign Office in Nanking to stop our work. I was completely taken by surprise. I had guessed, of course, that something was wrong, as I was kept waiting so long for an interview, but I never thought he would go back on his promise.

The only hope of saving a situation like this is to be the perfect diplomat and use all the proper "flowers of speech". I did my best. I talked to him of Norin's and my friendship and of our work together, passed on to other subjects, spoke of Bogdo and the old monk, showed him some photographs, asked his permission to take his photograph. He consented. He began to thaw a little, and brought up the question of the visa again, only to emphasize that it was not his fault but

that he was acting on instructions from Nanking, which prevented his permitting us to continue our work. .

In ordinary circumstances I rather shone at Chinese polite conversation, but on this occasion my anger stifled my imagination. It is not easy to be polite in terms of flowery language when you are seething with rage. The Governor-General was adamant. I was absolutely certain that the "instructions from Nanking" were his own private invention. This was not the first time that the expedition had come up against difficulties of his making, and as fate would have it, not even Professor Yuan was there, who might have been able to cope with the situation.

When I got home, I developed my photographs, went for a short walk, and then, as I was not feeling well, went early to bed. The next day Lao Djang thought me looking so poorly that he went to fetch Pedashenko, a charming little Russian doctor, who came and looked at me. He examined my heart and lungs, my liver and kidneys, my conscience and my spleen. He decided there was nothing much wrong with any of them except the spleen, and told me I had jaundice. I had always thought that people got jaundice from eating too much rich food, but he said it might also be caused by anger, and then I accepted his diagnosis. I had to stay a whole month in bed.

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It was to be a long time before I got clear of Urumtsi. The difficulties of an expedition in Sinkiang are not merely the difficulties of transport, the lack of water, the icy cold and burning heat; very often the diplomatic complications are the worst problem. Who was to believe that our interest was purely scientific, without any political side-issues at all?

At last, however, a letter from Sven Hedin saved the situation. Armed with this, I went back to the Governor-General and told him I had had a letter from my chief which might be of interest to him.

The Governor-General was not in the least interested, but he was a Chinese and consequently very polite, so he answered: "It is extremely kind of you. I am immensely interested in what Dr. Hedin has written. Would it be troubling you too much to ask you to translate it for me?" I wanted nothing better and began immediately—not *absolutely* word for word.

Dr. Hedin writes to reproach me severely for my laziness and indolence. "There you stay at Urumtsi simply amusing yourself and going to theatres (terrible) and concerts (still worse) or whatever else you may find to do, and absolutely neglecting your work. All the other members of the expedition are working away in the field under conditions of great hardship, making fresh discoveries every day and furthering the advancement of science. What do you mean to do?" I told the Governor-General that I intended to answer this letter by explaining the true facts, namely that the chief was very much mistaken if he thought I did not want to work. I loved my work, but unfortunately the authorities of Sinkiang were preventing my carrying out the investigations I wished to make by simply refusing to give me a visa, and this in direct opposition to the orders of the Nanking Government.

"But," I continued, "it has occurred to me that it might possibly be inconvenient for Your Excellency if I laid these facts before Dr. Hedin. If he began to spread it about in Peiping that the Governor-General of Sinkiang was opposing our expedition and disobeying Government orders, it is conceivable that Your Excellency's reputation might suffer"—the Chinese call it "losing face".

"That is why I brought the letter to show you, and ask your advice about it."

His Excellency looked at me from under his heavy eyelids with a shade of suspicion. Yes, it was true, that might not be altogether desirable. He looked at me again. "But," ~~he said,~~ "it is a long time since we discussed this matter,

and the political situation has changed considerably since then. I think it might be possible for you to go down to the Khotan district now."

But I was not going to let him get out of it as easily as all that. I had the upper hand now, and I replied: "Yes, Your Excellency, it is true that the political situation has changed. But quite frankly I believe those parts are very dangerous; the least little wind, the song of the birds, might alarm the soldiers. It is not really safe for travellers. I think I will write and make my excuses to Dr. Hedin all the same. Do you not agree that that would be the wisest course for me to take?"—"Oh no, by no means," he answered. "I assure you that it is quite peaceful and quiet there. My own brother is in command of the troops in the Kashgar district, and the discipline is excellent. No one travelling with a permit from me would be in any danger, and if you will send in your passport, I will see that it is attended to properly. You have no cause for anxiety."—"Well, in that case, I wonder whether I could start on Monday?"—"Yes, certainly, but can I not offer you another cup of tea? It is so seldom that I have the opportunity of entertaining a member of your distinguished expedition."—"It would be painful to my unworthy person to occupy more of your valuable time. People are still waiting in thousands to hear your wise words and obtain your sage advice. Allow me therefore to take my leave at once, and express my endless gratitude for the honour you have shown me in listening to what I had to say."—"Good-bye. *I lo ping nan*—May the palm of peace shade your path."

from
across
the
Woo
of
Thian



CHAPTER XIII

In the Field Again

“THE 5th February, 1931. Camp at Jetsedung. — 22° F., firewood wet, storms in the night, and still it is heavenly.”

Jetsedung was our first camp on the way to Khotan—we had got away from Urumtsi at last. On the 19th we were back again at our old camp on the southern shore of Lake Tsai-Woa-Poo. Both the old and the new pendulums were to be set up here, at the previous fixed points. The 19th was a red-letter day, Sven Hedin's birthday, and I chose that date to present Lao Djang with the medal which Dr. Hedin had obtained for him from King Gustav. He had once saved the lives of some members of the expedition in a critical situation, and this was his reward.

Vorotnikoff helped me make the yurt look festive. We spread a white cloth over a packing-case, placed two candles one at each end, laid *Transhimalaya* between them, opened at Aron Jonasson's fine portrait of Hedin, and set the Swedish flag in front of the book.

Outside the boys had built up a great pile of twigs and branches and made a huge beacon. Tomes, the Mongol, who was with me again, sat at the cooking-stove with his long pipe in his mouth, attending to the tea. Then we all assembled inside. There were just twelve of us, so that the whole zodiac was represented, and I sent a greeting from us all to our sun, Hedin. He surely knew that our thoughts were with him, in spite of the distance. Then I presented the medal to Lao Djang, who received it with surprise and pleasure.

Finally I showed them all the book which lay between the candles. The pictures interested them immensely. One in particular amazed them, taken on the journey when Sven Hedin was trying to make his way to Lhasa in disguise. It shows him in a shepherd's costume, driving a flock of sheep. Jamal achon, the *arbakesh*, a powerful, black-bearded Turki, thought our chief a very remarkable man. "Just think," he said, "at home he must have a large house, many wives, excellent food, fine clean clothes, everything a man could want. And yet he takes himself off to this land of dirt, goes cold, hungry, sweaty, thirsty. He gets rid of his fine clothes. He gives up his warm house for a draughty tent." And last of all, the thing that amazed him most: "And he does not even bring his favourite wife with him!"

In the evening we set light to the bonfire. The whole thing was ablaze in a moment, and tongues of flame went licking and flaring upwards. The faces around took on an unreal look in the bright glare. Perhaps the others were like me, and they too saw pictures in the flames, but for some minutes I was far away.

The sky was overcast, the wind was in the east, and there was nothing to protect the tent against it. As soon as the fire died down, we went inside. Soon there was nothing to be heard but the howling of the storm and the long rumble of cracking ice.

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The next day we broke camp. We made our way to Toksun by partly unknown routes, and thence followed the main road to Arghai-bulak. It is a bad road, as one can tell from the native way of reckoning its length. From Su-bashi to Arghai-bulak is 37 li (approximately 11 miles), but the natives said it was 90 li. They do not measure distance direct in terms of a unit of length, but by the time taken to make a journey, or the difficulty of the road. Thus they will often give such information as that the distance from Toksun to Su-bashi is



The camp on the southern shore of Lake Tsai-Woa-Poo



Through deep-cut valleys almost devoid of vegetation

70 li, but from Su-bashi to Toksun is only 50. In the latter case the road is downhill.

On the 7th March we reached the Mongol town of Kara-shahr. The fording of the river which bears the name of the town proved more difficult than we had expected. The stream was both wide and deep, and there had been a thaw for the last few days, so that the ice was beginning to melt in places. Early in the morning we sent over six camels loaded with provisions, as a test.

Each camel was led by a man carrying a heavy, iron-tipped staff which he kept thrusting down into the ice to test whether it would bear. The experiment went well, and we decided to take the whole caravan across. I sent a message up to the caravanserai, and waited myself down at the river.

While I was waiting there, a Chinese came riding up, muffled in a large wolf-skin coat, in a cheerful and sociable frame of mind. We had been travelling together for the last few days. He pointed to a tempting little inn on the other bank, and suggested: "If we two were to cross over at once, we could sit there and drink a cup of tea and watch your servants bringing the animals across." That was impossible, for I had to see that my valuable instruments were brought over undamaged, but if he cared to ride on ahead and wait for me, it would be nice to have a little talk, once the animals were safely across. He set off, just as my camels and wagons came down. There was a crowd of interested spectators on the bank.

A shout. I spun round. In the middle of the river I saw both horse and rider vanish together. The man managed to cling to one of the edges of the ice and hold himself up until the people on the bank could throw out long ropes and pull him out; but the horse, the saddle, the saddle-bags, and all their contents of hard cash and important dispatches—the man was a messenger from the Governor-General to the Governor of Ak-su—were sucked down under the ice and

carried away by the current. This spectacle put an end to any idea of trying to get across to the other side. Better wait a few days, until we could be safely ferried over.

A charming and well-to-do Mongol, An-go-saläng, with whom I was acquainted, invited me to take refuge in his house instead of going back to the caravanserai. I accepted gladly. He lived in a spacious and clean yamen. In the afternoon, while I was sitting on the warm *kang*¹ in the largest room, making up my map, a visitor was announced. It was Ma-shen-sing, the courier who had been nearly drowned. He had borrowed some dry clothes, and was come to pay his respects and thank me for my help, by means of looks and gestures and a long oration, of which I understood little, couched in the most intricate turns of his elaborate language.

He bowed and raised his hands, and the words flowed from his lips in a ceaseless torrent. He was so polite that I had never seen anything like it. I stood incomprehending in the face of his neatly turned phrases, and asked him what he meant. "Sir, you have saved my life! I must be allowed to thank you!—? ? ?—You were there with your remarkable caravan, it was a great diversion for the people of Karashahr to watch it cross the river. That was why there were so many people on the bank. That was how I was saved." This astonishing argument was followed by another succession of bows. I am certain that he thanked me far more than he did the people who pulled him out of the hole!

¹ *Kang* is a platform of brick on one side of the room, warmed by an open fireplace or kept at a comfortable temperature by some other means.



*lian lamas
a temple
Chogusān*

CHAPTER XIV

The Casket of the Dalai Lama

AN-GO-SALÄNG had a great treat in store for me, when he came that evening to ask whether I cared to go with him next day to the little monastery of Chogusän kurai to see the Mongolian monks celebrate a festival. Lao Djang, An-go and a young monk came with us, riding on elaborately adorned Mongolian horses. We crossed Kara-shahr-darya about six miles above the town. The water rose right over the horses' legs, but the bottom was firm and the animals sensible, so all went well. There was no ice so far up, but the current was much stronger there and the water beat against the horses' shoulders. We reached the monastery in the evening, and were given a comfortable tent, warm tea with salt and milk, boiled mutton and rich soup, and went straight to bed.

Next morning for the first time we saw the camp in all its glory. There were about fifty yurts standing on a plain covered with luxuriant grass. They looked like huge white bee-hives, and from some of them rose a humming sound which justified the comparison. We lifted the door-hanging of one and peeped in. The lamas were sitting in rows on the ground, dressed in red, reading Tibetan prayers aloud without the slightest conception of what the words meant.

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The following story is told of the founding of the monastery: Once, many years ago, there was a young Mongol who had lost both his parents and was alone in the world. As he was in comfortable circumstances, he decided to travel

to Lhasa, the Mecca of the Mongolians, in high and inaccessible Tibet. He sold his possessions and provided himself with *jambas* (a jamba = 4 lb. 2 oz. pure silver), the heavy silver coinage which is current all over Central Asia.

His road led southwards through Korla, Charkhlik and Temerlik, and it was long and difficult, full of dangers and obstacles. At length he reached his goal. He was lodged in a house belonging to the highest lama of the Kara-shahr Mongols, and stayed for a long time receiving instruction at the monastery. The Great Truths were revealed to him. His body wasted away till he became like a trembling reed, but his soul grew in strength.

When twelve years had passed, he was considered ready to return to his own country. The only possession he took with him, apart from his prayer-wheel and his holy books, was a silver casket on which were engraved the six characters *Om ma ni pad me hum*, and which, like the prayer-wheel, was a gift from the Dalai Lama himself. When he reached Kara-shahr, the reigning prince indicated Chogusän kurai as a suitable place to take up his abode. He forded the river—the same river we had just crossed ourselves. It was a cold winter's day, the water reached right up his legs, and afterwards both of them got frost-bitten. This was a sign from the gods that he was to settle on the spot where he found himself. Many of the young lamas gathered in his yurt, and he gave them instruction and taught his people from the holy writings he had brought with him.

One day the chief men of Kara-shahr came to his monastery, which already enjoyed a high reputation, and asked for his help. Every spring and autumn the town was visited with severe storms. The river overflowed its banks; the losses in cattle were heavy. Could not he, Burgut Lama, who possessed such great wisdom, incline the Spirit of the Winds more gently towards their town? He promised to consider the matter.

Diligently studying the holy writings, he discovered that it was not a good but an evil spirit that controlled the winds of Kara-shahr. So he determined to capture the spirit. He had himself carried down to the banks of the river, taking with him the casket of the Dalai Lama, and was left there alone all night. The next morning, when the people came back, he was still sitting there with the casket in his outstretched hands. His face bore the traces of great suffering. The struggle had been a hard one, but he had conquered. The storm of the night had subsided, the sun was shining from a clear sky, and the snow-crowned peaks of the Mountain of Heaven glittered in the far distance. He was carried up again to the temple yurt, and placed his casket in its innermost sanctuary.

Months and years passed, and the power and prestige of the old lama grew greater and greater. The bad storms were gone, nothing remained but gentle breezes at the time when the crops ripened.

The old man had often expressed the wish that, when he died, his body should be burnt and the ashes strewn over the river. When at last his hour struck, the people hastened to carry out his wish. His ashes were collected in an urn, and the prince himself was to strew them over the river.

Then an evil spirit appeared, and entered into the body of the beautiful princess and took possession of her soul. She went to her husband and said: "This cannot possibly be right; we should be much wiser to send the ashes to the Dalai Lama. He must have intended the casket in the temple to hold the dead man's ashes and be carried to Lhassa. Would it not be better to prepare a caravan and carry the dead man's earthly remains to the Dalai Lama, his lord and master here on earth?" The prince, who was quite a young man, thought this advice was good. A large caravan was prepared, lavishly provided with gifts and with huge *hadacks*—wide, light-blue, dragon-adorned ribbons from the Far East, symbols of com-

plimentary greeting. Some of the oldest lamas went too. The ashes of the wise old man were poured into the silver casket with the holy symbols, and the caravan set off in a raging storm.

Only the two oldest monks reached the goal of the pilgrimage. They told the Dalai Lama their story and presented their casket, laid on a rich *hadack*. He listened to the tale with astonishment—why had they not obeyed Burgut Lama's behests? How could they pay more heed to the light chatter of a young woman than to the wise words of an old man, the last wishes of the dead? Had not the old man sacrificed his own life and given all his possessions to help his people? He had fought and overcome evil. If they had strewn his ashes over the river, no power would ever have been able to open the casket, and the evil spirit would have been imprisoned. In despair the monks begged to be given their casket back, so that they might return home and fulfil the last wishes of the departed, but the Dalai Lama replied that they had forfeited the right. The poor monks had nothing for it but to return home with their gloomy tidings.

The storms still rage in Kara-shahr in the spring and autumn. Every day the monks swing Burgut Lama's prayer-wheel, every day they read their Tibetan prayers, but the incarnation has not yet taken place of a spirit strong enough to help mankind in its fight against the lord of the desert and mountains, the Storm, and overcome him.

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Töven Changset, one of the most powerful Mongol leaders, closely associated with Sin Chin Gegin, the Grand Lama, came to Chogusän kurai while I was there. He went from yurt to yurt visiting the old men, and giving each of them a gift and a *hadack*. One would be honoured with a packet of sugar, another with a canister of tea, one was given new robes. Töven Changset bore himself like a true chieftain. He was tall and well built, but the clothes that he and his

soldiers wore clashed badly with the surroundings. They were dressed in dark-green uniforms of European cut.

We went in together to see the present Grand Lama of the monastery, who dwelt in the sheltered security of a double yurt. He had been elected Prior some time before, in recognition of his having shown his respect for Burgut Lama by letting his legs waste away, in the hope of becoming worthy to set the people free from their curse and overcome the evil spirit of the storms. In front of his little altar, covered with blue silk, on which stood an image of the Buddha, shielded from the evil eye by a screen supported on two beautifully carved pillars of dark-red wood, ran a lower ledge, also covered with blue silk, on which was ranged a low row of exquisitely wrought silver bowls. Butter and oil were burning in the lamps all round, and joss-sticks were stuck in an old bronze bowl. The air was heavy with incense: the smoke of precious sandal-wood. The old man was sitting on a cushion, dressed in a robe of imperial yellow silk, with a tall lace cap on his head and a mother-of-pearl rosary in his hands. Every eleventh bead was of ebony and somewhat larger than the others. His hand passed caressingly over them, his eyes were fixed steadily on the image of the Buddha. I stood back in the dark tent, but Töven Changset went up and bowed before the venerable old man, who poured into his outstretched hand a few drops of water from a silver pitcher, which he drank while the old man wished him a long and happy life. When we went out—he had greeted me with a dignified inclination of the head—we left him still swinging in his shrivelled hand the silver prayer-wheel that was a relic of Burgut Lama.

In the outer tent the monks were reading from the Scriptures in a monotonous voice, and groups of Mongols were kneeling outside. Now and then a happy mother would venture as far as the tent door, where two lamas in dark-red robes stood in impressive attitudes distributing to the grateful

throngs water which had been blessed by the holy man inside the tent.

The climax of the festivities came when the sun reached its zenith, and the old lama was carried out and placed on a throne in the circle of the highest dignitaries. Few of them appeared to follow ascetic rules. They were round and sleek with good living, in striking contrast to the old man in their midst.

All the assembled people moved in a circle round the spot where the old man was enthroned. Group after group knelt down and touched the ground with their foreheads as they passed, while the youngest lamas chanted a sleepy melody. Neither they nor the people understood the words, but the tune spoke to their hearts. As each group passed by, the old man bent his head and sprinkled a few drops of water towards them from his silver pitcher. After this had gone on for an hour, the sound of hollow horns, resounding bugles and murmuring shells arose from the whole monastery choir. The holy one was carried in by reverent hands into his separate apartment, where he relapsed undisturbed into contemplation, seeking his Nirvana.

It was all beautiful and dignified, and it was an impressive sight when the Mongols came wheeling by on their tall horses. The women wore heavy silver ornaments and dresses of beautiful design and soft, harmonious colouring. Often they had a youngster in front of them on the saddle and one behind, holding tightly to their mother's belt. The poor people rode on oxen, the rich on horses, but no one went on foot. Their greeting sounded superb: "*Amorkhan sain beino?—Sain, ta mendo sain?*" (Are you in good health?—Thank you, yes. Have you peace in your soul?) They handle their horses magnificently. Even the lowliest of them bear themselves with dignity. They are the true descendants of the proud rulers of earlier times.

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Chogusān kurai



*Töven Changset, one of the most powerful Mongol leaders,
and two soldiers of his guard*

The ride home was not an unqualified pleasure. Lao Djang's horse stumbled and fell in a stream, and the boy was soaked to the skin, and had to spend the night in a yurt while the rest of us rode on. We had no lights, and it was as black as pitch when we reached the house, but a cup of tea revived our spirits. Chil and the other two dogs, Manasse and Uarda, had not been able to accompany us on this excursion. They barked joyfully on our return and danced round their master when he went to the kitchen to fetch them some meat, after that sitting primly up on their best behaviour. Chil in his black dinner-jacket, Manasse in tails with a white shirt-front, and Uarda in her beautiful shimmering brown silk evening dress. Give a paw nicely, good dog; thank you, good night.

CHAPTER XV

The Burgomaster's Visit

THE crossing of Kara-shahr-darya was comfortably but slowly accomplished by means of big ferries, taking six camels at a time. It was very crowded, and long queues were waiting on either bank, but An-go-saläng had arranged for our animals to be taken first, and this saved us several days. Ma-shen-sing had gone back to Urumtsi, where he was unfortunate enough to be dismissed from his post on account of having lost the documents that were swept away from him in the river.

While the ferry swung backwards and forwards with its loads of camels, An-go-saläng and I sat on a rush mat with a dish of *manto*, a kind of steamed pasty, in front of us, and drank green, aromatic tea. The instruments were safely over.

A busy scene lay before us. One Turki family had made themselves a positive home among huge bales of picked wool. Next came enormous bundles of Khotan paper, loaded on arabas. Mats from the Khotan district were recognizable from afar by their bright colours, for unfortunately the beautiful, far more valuable and lasting vegetable dyes have been replaced now by aniline dyes. There were heavy sacks of rice from Ak-su, all stamped with the name of Dao Tai, on their way to Urumtsi. Opium smuggled from Russia was hidden in many a saddle-bag, as the yellow, sunken, wasted faces of the owners bore witness. Groups of travellers from the southern tracts of Alte Schar ("The six towns", an old name for the districts round the Taklamakan desert) were on their

way to Urumtsi to look for work as agricultural labourers. A *kapak*, or gourd, to carry water in, and a bundle on their back, was their only provision for their long journey. Donkeys brayed incessantly, and well-groomed horses and fine mules, the favourite beast of the Chinese, were much in evidence. The Mongols maintain that the horse is superior.

There was great excitement just as our last camels came up. A wedding procession on the other side was waiting to be carried over, but the beardless, dour Mongol who was controlling the traffic regarded this as a matter of little importance that could quite well wait, and told the ferryman to take on a few arabas instead, quite unmoved by the oaths which a Turki can always produce at least as easily as a pious prayer. However, he may have softened later—it was doubtless merely a question of a little financial adjustment. It is very rare in Chinese Turkestan to find anyone who will not gladly accept bribes; the art is simply to hit upon the right way of offering them. The recipient will always have some brilliant story ready to explain how the money, to which he is so indifferent, was “forced upon him” against his will.

The road to Korla runs through the hills, following the course of the clear, foaming Konche-darya. These hills contain coal and minerals and a few salt mines. We avoided the town of Korla itself by skirting it to the left—the monotonous visits to the authorities in a place like that generally take a whole day, and I was very unwilling to spend the time, as we were in a hurry to get to Ak-su. From Ak-su we meant to go south through the desert, and if the year was too far advanced, the journey would be too difficult.

I mapped our route as we went, using the wheel of an araba as a measuring wheel and trying to make my records as accurate as possible. As far as the weather allowed, we fixed the position of every camping ground by astronomical location—we could not always see the stars, though we generally could. These were busy days, with little time for sleep.

I was always the last into bed, and called the others at dawn.

Near Korla I had the pleasure of meeting Sir Aurel Stein. He, like us, had had some trouble with the authorities, who instead of helping did everything in their power to hinder. The Chinese are of a friendly disposition, and the individuals one came across generally *wanted* to help, but could do nothing in face of the orders they had received from their superior authorities. Sir Aurel knows all there is to be known about Asia, and even at his present advanced age his interest still centres in these districts where he won his early laurels; but it was impossible not to see how bitterly he resented these diplomatic difficulties.

Generally we spent the night at a caravanserai, which was in many ways the most comfortable arrangement. We worked intensively. Vorotnikoff travelled by night and spent the day in some village where he could read his meteorological instruments quietly every hour. This greatly increased the value of my measurements, and meant that the altitude figures on the map were of an accuracy that would not otherwise have been attainable.

A caravanserai is really a terrible place, but if you go the right way about things, you can make yourself quite comfortable there. Vorotnikoff and his section generally arrived first. The first thing they did at each new place was to shout for "*Kā sui!*"—"Hot water!", and sprinkle it over the walls and floor to bind the dust and drive away the vermin. Ragged mats were carried out, simple but clean rush mats laid down, two stools and a long table taken in, the windows opened wide—if they would open—a fire lighted in the open grate, and the room was ready to receive a sahib.

When you live in a caravanserai, the work of the servants is considerably reduced. Everything you need is available on the spot. Even the cook has an easier time, and a comfortable stove to put his pans on. The beasts get a stall, where there is no risk of their escaping, and have well-filled mangers in

front of them. Just when the caravans arrive in the evening it is unpleasant, for the horses have a habit of rolling on the ground as soon as the harness is taken off them, and send clouds of dust flying over the whole courtyard, but after that it gets better again.

Vorotnikoff taught me a fine trick for keeping the natives out of the way while I was working. The chief trouble always came with the determination of the magnetic declination, which I took just at sunset. I had to be able to see the magnetic needle move, and at the same time observe the pole star in the north, and I was very unwilling to take this measurement at night, as the sensitive magnetic needle is thrown out by a pocket lamp.

Of course as soon as you set up an instrument in some place where no one has seen anything like it before, you are immediately surrounded by a crowd of inquisitive onlookers, which is both irritating and dangerous. But just at sunset there is an excellent way of getting the natives to sit down quietly on the ground, and stay there motionless and silent for just as long as I needed to complete my measurement. When I had set up my theodolite and the crowd had gathered, I put my hand to my ear and listened. At sunset you always hear the chanting of the *Allah il Allah* prayer. I turned to the people round me and asked if they were Mohammedans.—Yes, they were. Then why aren't you sitting down? Can't you hear? Yes, of course, they could hear. The Koran requires the faithful to sit when they listen to prayer. Every one of them sank down and sat piously listening, while I took my measurements in peace and quiet.

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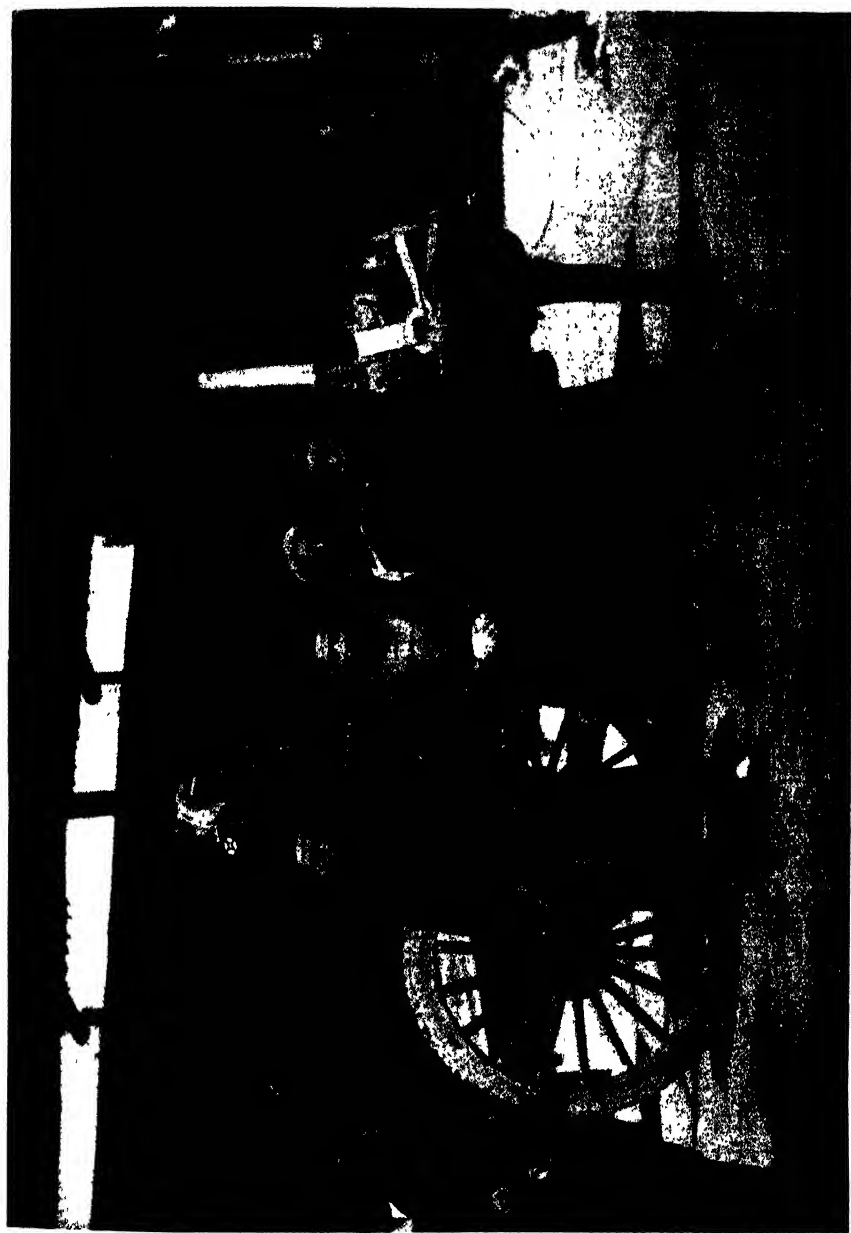
One of the many features which the towns along the northern boundary of the Taklamakan desert have in common is the pooriness of their roads. The country is so boggy that the roads are positive quagmires and shake as you go over them. Every now and then one of the animals will sink through

the surface, which is strengthened with interwoven twigs and branches, and then you have to look very sharp, for the bog seems to draw the creature down. For Vorotnikoff, who travelled at night, this danger was particularly acute. But our lucky star watched over us, and we never got into any serious difficulties.

The camels were very lightly loaded, so as to be in their full vigour when it came to crossing the desert from Ak-su. Chil went with them, and learnt the art of rounding them up from the dirty but capable Lao Cheng. He learnt it so well that he became an invaluable help. Whenever the camels were being rounded up, Chil would run round them in wide circles, barking and snapping a little at their legs, playfully but enough to make them go the way he wanted. A good dog is worth two servants, and is far more loyal and watchful. No unbidden guests came round our camels at night.

We reached Kucha on the 1st April. A Swedish woman lives there, a Miss Lovisa Engvall. I went to see her on the 2nd, but I was tired that day. I had been riding hard for the last few days, and I said frankly that she must excuse me for only staying a very short time, for I must go home and sleep. She gave me coffee made on her Swedish cooking-stove, and both the coffee and the Swedish stove warmed me body and soul. When I had eaten up all the Swedish ginger biscuits, she saw me back to the caravanserai.

I had sent the burgomaster my visiting card that morning, and he responded to the gesture with a personal visit. He came at twelve o'clock, just as Miss Engvall and I got back. After exchanging the ordinary formalities, we entered on a more personal conversation. He was very interested, and cross-questioned me like a newspaper reporter. We looked at maps and admired photographs. Among other things I brought out the China volume of Norstedt's *History of the World*, admirably written by Professor Karlgren and well illustrated. It grew later and later, but still the burgomaster



*'gomaster
and his*

sat placidly on. He was evidently in no hurry. When five o'clock came, he got up, and as etiquette demands, I went with him to the door, where he thanked me for an extremely interesting conversation, and I replied that I was only sorry that he had to take his leave so soon, but that I deeply appreciated his long visit, which must give me far greater "face" in the eyes of the townspeople than I really deserved.

If I had had any notion of the result my words would have, I should indeed have chosen them more carefully. "I have enjoyed all this so much; I am going home now to have my dinner, which will take me an hour and a half, but after that I will come back, and we can continue our conversation." Of course I answered that he honoured me too much and must not think of putting himself out any more. It was no use. The thing was settled, and if my "face" was not great, it must at any rate have been long.

At half-past six he was back, urbane and pleasant as before. Miss Engvall was kind enough to come too. She had stayed by me the whole time from twelve to five, and now she thought to herself: "I can at any rate take part of the conversation on my shoulders, so that he can get a little rest." She did, only too well. I suddenly dropped off to sleep. I was roused by a light tap on the shoulder from the burgomaster. I jumped right out of my chair with horror and apologized. "Not at all," the burgomaster replied with exquisite politeness, "I noticed that you were asleep and so I woke you up. If you should drop off again, I will give you another little reminder." And we continued our conversation. When nine o'clock came, he got up, and I drew a sigh of relief. But alas, it was premature.

I went out with him into the courtyard, and as we were walking over to the outer gate I felt him seize my arm. "Look, the stars! And the moon!"—Yes, indeed, I could not deny the fact, though I was tempted to, for I guessed what was coming. "Now you must get out your 'Thousand Eyes'

that you have told me so much about, and let me see them too." "Thousand Eyes" is the Chinese name for a telescope, and what he meant was my theodolite. I unpacked it, and we looked at the heavenly bodies, admiring Alcor and Mizar, and Jupiter and her moons, and finally the moon, the most wonderful of all. He was surprised that it appeared upside down—he was very observant—and I had to explain briefly why. Then we packed the instrument up again, and I asked if I could offer him a cup of tea, after standing about so in the chilly air? But no, thank you, he was satisfied, and went home.

There were crowds of servants waiting outside the door, and two huge paper lanterns a yard long inscribed in red and black with the name *Lo-shen-guan*, his name and title, and various other characters which I could not read. Each of the lanterns was supported on three rods of some red kind of wood, which looked like fishing-rods, and carried by six real soldiers; and so Lo made his departure, preceded by one of the lanterns and followed by the other and the whole of his suite. I *could* not take Miss Engvall home. In another five minutes I was asleep.

We set off again at seven o'clock on the morning of the 3rd. Miss Engvall had saddled her fine black horse and rode with us for a few miles. When we parted—it was Easter—I had a little pot of jam in one pocket, and a bag of gaudily painted eggs in the other. But neither did she go empty-handed home. I presented her with a little flag, a very good lead pencil, and a box of Swedish matches. And lest anyone should think that all this was just nonsense, let me hasten to add that we parted with some mutual emotion, and both highly delighted with our respective presents. Miss Engvall is a magnificent representative of Sweden abroad, living a life of privation, absolutely alone, and devoting herself to the care of the sick. I met several other members of the Swedish mission later on, and found in them all characters to admire and people to love.



The author with his "Thousand Eyes"—his theodolite



Abdul achon, the white-bearded, much-travelled caravan bashi

CHAPTER XVI

Through the Desert to Khotan

ON the morning of the 11th April I met a messenger from Norin, who was on his way back to Urumtsi. When the Governor-General gave me my visa, he had recalled Norin at the same time! We met in the evening and encamped together at a little place called Kotshtam. We slept little that night, and spent the next forty-eight hours intensively in each other's company. When we parted, we had no idea when we should meet again; but we had good hopes, and they were justified.

A few more days brought me to Ak-su. There I had to prepare for the march through the desert. It looks so simple on the map: a straight line running through a large desert from end to end. Well, it may be simple on the map, but in reality it is difficult. True, we were going to follow the bed of the Khotan-darya, but it is dry. There is only water in a few scattered places. We were to take thirty camels. In order that these thirty camels might be fit to endure the hardships of the desert march, they had carried no loads on the whole last lap of the journey. I made careful inquiries in Ak-su as to whether there was any possible danger for the animals, but everyone said "No".

To make absolutely certain, however, I had huge white costumes made for the camels, something like pyjamas, to protect them both from the fierce rays of the sun and from the unpleasant ticks. The tick is a chapter to itself, a loathsome creature. It fastens on to the camel with its powerful proboscis, and sucks the blood steadily like a leech. From

being the size of a healthy fly, it grows and swells until it becomes like an enormous black grape, and the original animal cannot be recognized. Even *one* of these creatures torments the camel. It is worse when they come in thousands. The camel suffers both from the loss of blood, and because every one of those little bites is a sore which becomes inflamed and smarts and drives him distracted.

Our camels were magnificent. Their humps were swelling with fat, their muscles well defined and strong. The natives have an amusing system of indicating whether a camel is in good or bad condition. For a good camel they hold up their first and middle fingers, for a bad camel a clenched fist simply. Two fingers up means that the camel's two humps are standing well up. The humps are full of fat, and provide the nourishment he needs when supplies of rice and maize run out and when there is no more green stuff to eat. He also carries a water supply in front by his shoulder, which enables him to hold out for ten or even fourteen days without needing to drink. Our camels were all two fingers up. The servants I had with me were also good, even if they were not exactly of the two-fingers-up class. When we set out from Ak-su on the 5th May, we were confident that all would go well.

All did go well—to begin with. I set up one pendulum station after another. In spite of the driving sand and nasty wind, we worked our way day by day a little farther towards the south. But gradually our camels began to lose their strength. When we reached Mazar-tagh, about half-way, one of them died. I became frightened. This was serious. It is not so very bad, you may think, for *one* camel to die, when you have thirty! Yes, it *is* bad. If *one* dies, the probability is that many others will go the same way—and possibly quickly. I looked at the beasts. Their humps were already lying limp along their sides. Vorotnikoff and I held a consultation. What should we do for the best? It was not easy to know, but in the end we decided to send all the camels without any

loads by the direct route to Khotan. They would find good pasturage and plenty of water in the cool valleys of Karanghutağ south of the town, and, we hoped, recover their strength.

How were we to get on ourselves? Well, many empty caravans pass along the dry Khotan-darya. If a Turki caravan has a load, it prefers to avoid this way and take the considerably longer route round the edge of the desert area, where water, fodder, and everything necessary are available on every day's march. On the other hand, if it has no load it will choose the considerably shorter road through the desert, and risk the dangers.

On the very day that our camels set off southwards, we met a donkey caravan travelling empty. Could we hire it? Yes, on one condition. There was a boy in that caravan, Emin achon by name, who was ill. If sahib would promise to do his best to cure Emin achon, we could hire the caravan, otherwise not. To do my best was at any rate not beyond me, so I promised, and we immediately drew up a contract and signed it, I with my signature, Abdul achon, the white-bearded, much-travelled caravan bashi, with his thumb-print. Like most of his race, he had never learnt to write.

Then I went to look at Emin achon. He was in a bad way. A neglected cut on the inside of the index finger had set up blood poisoning. The finger was swollen, and so was the hand and the arm a good way up. What was one to do about that? There was nothing to do except to make a cut, and I explained this to the good Emin. He was outside the door before you could say Jack Robinson. Cut? Never!—I heaved a sigh of relief inside the tent. I had promised to do my best. If the boy refused, well, that was his affair. I had never operated on anyone in my life, and I had no desire to start now.

But I had sighed too soon. Emin achon stood outside the door talking to his brother, Tochta achon. Tochta had been among the missionaries at Yarkand, where there were real

doctors, and he knew that this cutting people up was not in the least dangerous; he told Emin that "in Yarkand they open people's stomachs right up, and take out the rotten parts, and then sew them together again. It is not dangerous at all. You let him cut you, and you will soon be well." I stood inside, listening and watching, and saw his graphic gestures. It was something to be thankful for that this was not a case of appendicitis.

A little later Emin came in, pale and trembling with fright, and told me in a tremulous voice that he was so anxious to have his finger cut.—Yes, one could see how anxious he was: just as anxious, in fact, as I was to do the cutting. However, there was no getting out of it now; I should have to try. I had a valiant help in the person of Vorotnikoff, who had once been Dr. Hummel's assistant and had learnt a good deal from him. We set to work together. First we had to wash the boy, and that thoroughly. Then came the question what to use for an operating knife? We found it right at the bottom of a packing-case: the old razor, which now came to honour again. We washed it in spirits and held it over a flame to sterilize it completely. Two men held Emin's hand—we had no anæsthetic—Vorotnikoff wielded the knife, and I stood by the bandages and antiseptic wadding. I had brought a beautiful first-aid chest with me from the chemist's in Lund, and it contained everything we needed.

Two deep cuts, one on the inside, one on the outside. Two frightful howls, a shower of tears. The blood spurted, Emin wept, Lao Djang turned white. On with the antiseptic and the bandages, and the whole thing was over to everyone's satisfaction. We gave Emin a morphia tablet to deaden the worst of the pain, and in a little while he was peacefully asleep.

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We set about repacking all our baggage. We were to travel now not with camels but with donkeys, which can only

carry about a quarter as much as a camel. Before we started, I had to go up to the Mazar-tagh hills to make a triangulation. It was a warm day. The hill I wanted to climb was only about three hundred feet above the camp, but it was heavy enough going, because the sand was deep and at every step you slipped back almost as far as you went up. The servants were unwilling and thought the whole thing senseless, and I myself was not fired with any great enthusiasm. I had seen the customary dust haze approaching from the north, and the chances of our getting to the top before the storm was on us were not great.

As I stumbled upwards, sweaty and rather depressed, I began to think of my friend Norin. I thought of the happy time we had had together at Arpishme-bulak and of the day he found his coral reef, and one thought led to another. Supposing there were fossils here too? I began to look at the ground more closely. It was not long before I had a little stone in my hand which looked distinctly unusual. I offered five liang to the first man to find a "good stone". The servants knew what that expression meant, and laughed; it was ridiculous, there was nothing here but sand. Still, with the promise of the "fiver" before them, they kept their eyes glued to the ground, and after a few minutes Lao Djang came up with a small mollusc. Now I was certain. We set all the apparatus down at the top of the hill, and I remained there making my measurements while the boys went back to go on hunting. I spent that evening happily sorting through two large boxes full of the most beautiful fossils, spiral-shaped molluscs several inches long. That was a joyous evening!

South of Mazar-tagh the watering places became more frequent. Occasionally we made short excursions out into the desert itself in search of old river beds, of which we were lucky enough to find several. The river has changed its course several times, and in many places we found banks which had quite recently fallen in when the river had cut itself a new course.

To get some idea of what the country looks like, we will make a trip straight across the river beds from the desert in the west. The first vegetation we come upon is some half-dried-up tamarisks, an occasional toghrak, then a belt of rather more varied species, and then a few patches of reed as well. From the top of a high dune we can see a line intersecting the countryside, which represents a very old, dried-up river bed. Then follows another belt of bare, undulating sand. The tamarisks and poplars begin again, and grow more frequent. A high, long dune forms the beginning of the next formation. It runs down in a steep slope on the other side, and there, twenty or twenty-five feet below us, lies a wide belt of dry jungle.

It is hot and we are wearing thin, white clothes. The bushes are full of strong thorns, which tear our clothes, and little red spots appear all over our shirts and trousers from the hard spikes, which leave their mark in the form of unpleasant but harmless little cuts. In one place the ground is marshy, with a long row of pools of very salt water. This is another old river bed, though of more recent date than the one we came upon first. The jungle continues. Suddenly it comes to an end, and before us lies a narrow strip of plain covered with reeds about eighteen inches high, and a few leguminous plants pushing up out of the salty-white ground. This level lies some feet lower than the belt of jungle. Another terrace, five or six feet lower still, and we are standing on the bottom of the actual river bed. It is quite hard and flat, with little patches of sand, and in some places is as much as a mile or so wide. We cross it. On the other side, close under the reed-covered terrace, lies a little pool, a hollow in the ground full of shimmering green water. It was a pool like this that once saved Sven Hedin's life. Beyond, practically the same features are repeated all over again. Sometimes one or another of the formations described above may be lacking, sometimes even several of them, and it can happen that the river is bor-

dered directly by dry desert. South of Mazar-tagh you will sometimes find a little pool at the junction between the reed belt and the jungle. It can always be seen a long way off, for the people always mark it carefully with tall poles with a crossbar at the top, or an unusually shaped branch, so that it shall be easily found.

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To return to our journey to Khotan. It was early in the morning of the last day, and we expected to arrive there in the afternoon. Everything in the tent was ready. I had just had my tea and sent for Emin achon to dress his finger. The operation had been a great success, and the inflammation had died down, but the wound still needed attention and I used to change the dressing every morning. Lao Djang came in—and told me with a malicious grin that Emin achon had run away. “Run away?”—“Yes, he and his brother, Tochta achon, have gone off.” I did not understand at all. What in the world had they run away for? Had they stolen anything, or what had happened? Lao Djang laughed and evidently thought his master terribly simple-minded.

Eastern people often think us Europeans simple-minded because we cannot follow the way their minds work, but upon my word it is not always easy. Lao Djang had to explain to me. It was quite obvious, he said. Think of the time Sahib had spent on the boy. Think of all that fine medicine, all those fine powders and pills, red and white and yellow. The first-aid chest had yielded potassium permanganate, boric acid, chinosol, and many other costly things. And all those fine long strips of lint, which would have been much more suitable for dressing a young bride. The gauze bandages! It was obvious that all this would cost a small fortune, and the two brothers could see that they were going to have an enormous bill to pay. So they took to their heels.

I was both sorry and angry. They were utter rascals. I had actually saved the boy's life, and then for them to run

away like that! It put me in a bad humour, which did not improve during the day's march.

The weather was warm and oppressive, with the usual sandstorm at midday, and the air full of dust. My great consolation was my dark glasses with the close-fitting wind shields, in which of late I had even slept. That afternoon I broke them—my last pair.

Just before we reached the town, we were met by Lao Cheng, the man who had gone on ahead with the camels. He was not looking particularly cheerful. How had he got on with the camels on the way down?—"Badly, sahib, very badly." Seventeen of them had died. This was a staggering blow. In a situation like this one has no one to confide in, no one to *talk* to, no one who can *understand*. It drives one half crazy. What in the world was I to do?

"How are the twelve that are left?"—"Bad, sahib, very bad," came the answer again. "Where are they?"—"In a serai just over here." We went straight there. It was the miserable remains of camels we found there, no proud ships of the desert. Not a hump stood up, they hung down the animal's sides like empty sacks. Their eyes were dull. It was a scene of horror and desolation.

We arranged to take up our lodging at the house of a fine old man, the British Ak-sakal Badrudin Khan, who is known and loved by all who visit Khotan. Then I went straight on to see a Turki merchant and try to make some arrangement with him about the camels. He was quite willing to purchase what remained, if he could have them at a reasonable price, and after a rapid inspection, we came to an agreement by which he bought all twelve for the price of three healthy animals. He was quite satisfied and thought he had a good bargain, and so did I, for the natives know quite a lot about the treatment of sick animals, and the probability was that he would get them right again. But it turned out worse than we had thought. I met the same merchant again



“Hedin’s Pool”

A small pool on the eastern bank of Khotan-darya, which saved Hedin’s life in 1895, and now bears the explorer’s name



Vorotnikoff beside the meteorological station at Mazar-tagh

two years later and asked him what had happened, and he said it had gone badly. Only *one* of the camels had survived.

It was certainly not the heat, nor the ticks, nor the shortage of water that was the cause of the trouble. Probably they had caught some infection from one of the pools they had drunk from. *We* had not caught it because we always boiled our water, but camels do not drink boiled water.

A misfortune like this always raises the question of whether it is right, whether one is justified in throwing lives and money away like that? The question is difficult to answer. The results of our work cannot be measured in shillings and pence. What are the results? First the map, whose accuracy I took all possible care to ensure. Then the astronomical place locations and magnetic declinations, the gravity readings, the botanical, geological and meteorological observations. At any rate we had something to show for it all, I thought, as I sat alone in Badrudin Khan's serai that afternoon and turned the whole thing over in my mind. And when I had calmed myself a little, I decided I would go and pay my visit to the Governor of the Province before the day was over.

I had a pleasant surprise. Liou-Dao-Tai was an old friend to the expedition, and we had a really pleasant conversation. We drank our tea and produced the most elegant "flowers". He called me "Priest of the stars, Subjugator of the desert"; I parried with "Peer of the lotus flower, Strong Hand of the aged"—he spent every penny he had on his aged mother. We vied to outdo each other. At first I managed to keep my end up quite well, but as things went on I got left far behind.

It was all very pleasant to be called Noble lord, Son of the all-seeing eye, Radiant pearl of wisdom—I recognized how true it was, and felt it deeply—but I began to grow a little uneasy. What lay behind all this politeness? There must be a catch in it somewhere. I was getting tense with apprehension, when at last it all came out.

“By the way, my watch is broken.” And he pulled out quite a good gold watch, and wondered whether I would be so kind as to mend it. Well, that was that. He had called me “Radiant pearl of wisdom”, and now I could not even mend his watch. I told him I was extremely sorry, but really I had not the slightest idea how to mend a watch like that. He did not believe a word of it. “Don’t be so terribly modest, I know that you can do anything. Please do me this little service.” I tried in vain to convince him that I could not by any means do anything, far, far less. I was like the scarab beetle that crawls in the desert in comparison with the very humblest real watchmaker. The trouble was that he had proof for his assertions, whereas I had none for mine.

Had I not, when I passed through Kucha, mended a bicycle, the only one in the district? Yes, I had. Had I not mended An-go-saläng’s sewing-machine in Kara-shahr? Yes. And in Ak-su a gramophone? Again, yes. And on the way here a man? So he had heard of that already. What more could one want? It was conclusive. I *could* do anything. The only question was whether I *would*.

What was I to do? I decided I should have to take his watch home with me, keep it for a week or so, and then send it back with a message that I was sorry, but I had not been able to mend it. I thought Providence might have spared me this. I had had trouble enough that day: first Emin achon running away, then my glasses, and then the horrible tragedy of the camels, that weighed heavy on my mind.

But Providence meant well, though I did not realize it at the time. When I got home—it was overcast that evening, and I had nothing to do—I took his watch out and began to look at it a little more closely. Man is an inquisitive animal. I opened the case. It was a very handsome watch. The little screw that held the knob for winding it up was loose, and I tightened it. It was a simple and bloodless operation, and the patient recovered. I sent for Lao Djang, handed him the

watch, and, with an expression of studied unconcern, asked him to run up with it to the Governor's, although it was somewhat late.

Lao Djang looked at his sahib. He straightened himself and grew several inches taller. Of course he had been up at Liou-Dao-Tai's with me a little while back and had heard the Governor say that I, his master, could do anything, but he had not *believed* it. Now it was obvious that Liou-Dao-Tai had been right. Now he was first boy to a master who could do *anything*; so he had every reason to grow, at any rate in his own estimation. He went straight up to the yamen, and in half an hour's time he was back again, beaming with joy. He had doubtless been well recompensed for my having mended the watch, but he was welcome. I was a little curious as to what Liou-Dao-Tai had said? "Oh, he said: Of course I knew he could. It is only that he is so terribly modest."

CHAPTER XVII

Karanghu-tagh—the Dark Hills

LANGHRU is a little village twenty-five miles south-west of Khotan. It was during a long illness there that I first really learnt to appreciate the faithful Mongol Tomes. Until then I had had mainly Chinese servants, but they were horribly dishonest, and I hated it. When I found that Lao Djang, our first boy, was a rogue, one of the others a thief, and that the cook had syphilis, my patience gave out.

I made the last discovery one evening, just after an astronomical determination of position. I had jokingly turned my pocket lamp straight into the cook's eyes, and to my horror the pupils did not show the least reaction, but stared back as large and black as ever. An hour later he was out of my camp, and we washed all the kitchen utensils with a warm solution of potassium permanganate.

I told this story to Hummel not very long ago, with a certain pride. He laughed and said: "That was a silly thing to do. When the illness has got to that stage, it is no longer infectious, and you can be quite sure that the next man you engaged, and who gave the normal reflex, had the same illness at a much more dangerous stage."

I engaged Turkis instead of Chinese. The new head of the caravan, or caravan bashi (bash = head) as he is called in Turki, was an Argon, Muza Hadji. The race is a mixture of Ladaki and Turki, and the combination is an excellent one. Hadji, as we used to call him, had served on several of Sir Aurel Stein's expeditions, and proved sensible and reliable.

Tomes attended to the meteorological observations in Khotan. He and I used to correspond in Russian—not without some difficulty. We had to begin by holding a conference to agree upon an alphabet that suited us both. His epistles were gems. I will translate one: "Pencil not. Barograph works well. I well. Big bey from Kashgar came yesterday, lives here. Three new wives every day. Good recovery. Tomes."

Whether it was the bey or Tomes who had the numerous wives, the letter did not disclose, but I was not in any real doubt.

Langhru was an outpost of the Karanghu-tagh mountains, towards which we were gradually making our way. Between the steep hills lie gentle slopes with excellent pasturage for sheep and goats, though only sparsely inhabited. In the summer large flocks are driven up there from the plains about the river beds of Jurung-kash and Kara-kash, but in the winter it is too cold there for sheep.

The population is not very attractive. It is said that the lower type of criminals used to be sent to these parts; but the country is fascinating none the less. Behind the pasture-land lay the lofty peaks of the Kun-lun range, and both these and the lower hills were included in our itinerary. Norin had been there before and studied the geology and topography, and now I was to carry out position-fixing and gravity observations.

We generally rode from camp to camp on small, hardy mountain horses, and climbed the peaks on foot. The gentle slopes, covered with rich, luxuriant pasturage, had tempted numbers of marmots to settle in the district. They used to sit about on the hillsides waving their outstretched hands—their paws look like hands—and crying their "yokk, yokk, yokk". Marmots live in deep burrows, which constituted a serious danger to our transport animals, for often they nearly broke their legs when they happened to tread on one of these

deep, treacherous holes. The hunting of marmots is prohibited by Turki law, possibly on account of a legend which I was told there.

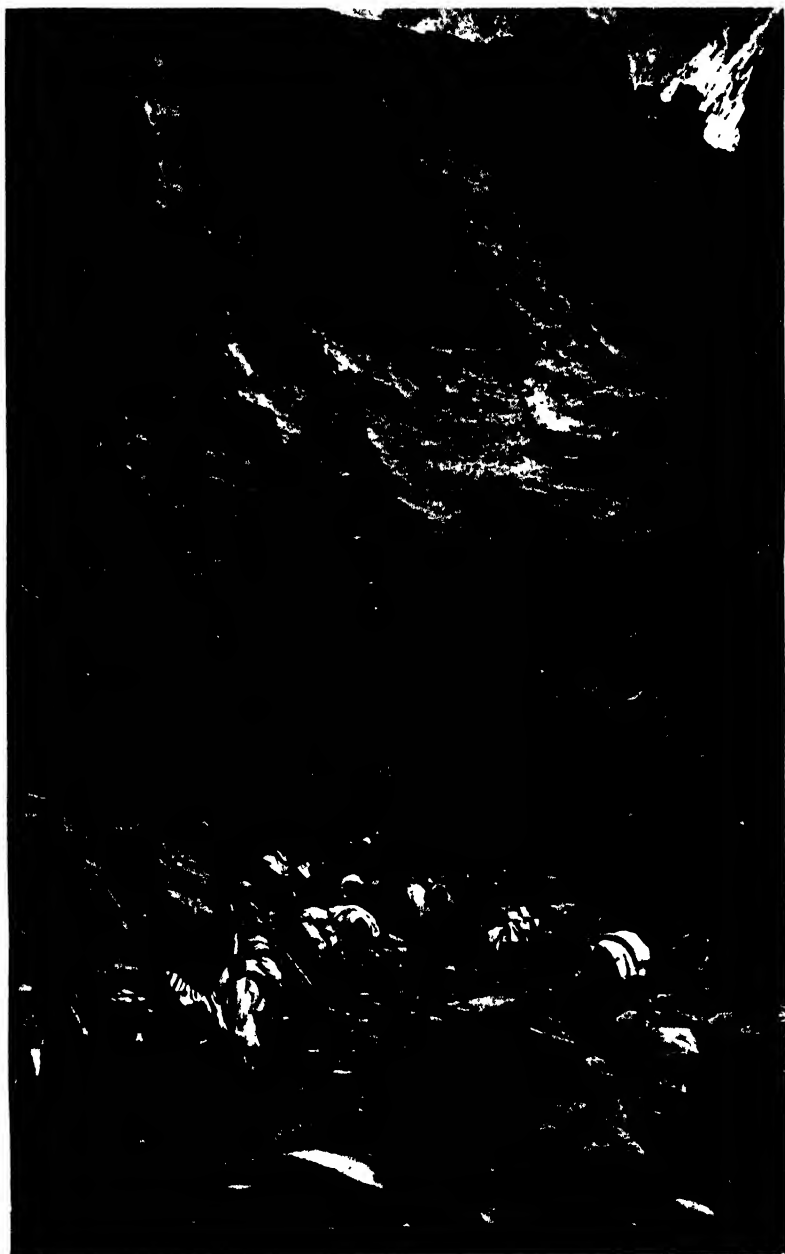
Once long ago there lived at a little village called Pisha a molla and a common achon. Their lands both adjoined a heath where there was excellent pasturage. One day they fell to quarrelling about this pasturage: Kamal molla declared that it was his, but Niaz achon maintained that it was their common property, and the matter was taken before the council of the elders. Kamal molla was a bad man, and to make matters worse, his daughter, Henipa chan, was a bad girl. Together they dug a deep hole in the ground, and the girl hid in it. When all the people were assembled, Kamal molla suggested that the simplest way of settling the matter would be to ask the ground itself to whom it belonged. Allah would surely let it answer. The elders thought this a good idea, so the Ak-sakal asked: "To whom does this ground belong?" and from the depths of the earth a voice answered: "To Kamal molla!"

The all-knowing Allah sat above in his heaven looking down on the council meeting. That one of his own servants should so abuse his office and his understanding troubled and even angered him. He therefore transformed the daughter into a *davogan* or marmot, and this at once set up its typical cry, "yokk, yokk, yokk," which in Turki means "no!" Then the people understood that this was a sign from heaven, and they drove out the wicked molla, after first shaving off his beard and taking away his white turban. But as Henipa chan had been a bad girl, the *davogan* became a bad animal, a despised *djallap*, outcast, stinking, unclean.

When Niaz Beg, who was riding with me, came to the end of his tale, I suddenly found myself sitting on the ground. It had all happened in a flash. "Hoppla" had set his left foot in a *davogan* hole, and I had looped the loop over the horse's head and landed in a sitting position without so much



A Langhru Family



The higher we climbed, the more difficult it became

as a scratch. The only damage was a broken pencil point. This was the third time I had nearly come to grief out there, and, as on the first occasion, I was soaked through with sweat in a second. "Hoppla" ran away, and I had a long chase to catch her again.

The bridges of Karanghu-tagħ deserve some attention. They are much better now than they were ten or twenty years ago, but although they are quite strongly made, they still remind one of the line from the Swedish poet Tegnér, "Bends 'neath its burden the hanging bridge", and the animals certainly do not enjoy being taken across. One man walks in front and holds the animal's nostrils or the halter, another walks behind and holds his tail, and generally they get safely over. Down below, perhaps sixty feet lower, rushes a foaming torrent. Why do they not build better bridges? you ask. Well, they have their reasons. Although the river is sixty feet below, it sometimes rises to the level of the bridge. This is likely to happen in August, when the heat of the sun melts the ice on the mountain-tops and the glacial rivers are full. At lower levels clouds bring heavy rainfall, and the water rushes into the wide darya from thousands of valleys. If the rain from the lower hills happens to coincide with the flooding from the mountain-tops, the rivers swell instantly, and many human lives are endangered. The water rushes along in foaming cascades, the bridges are torn away, and in cases where the river is used for irrigation purposes, the dams are broken, and the whole fields may be swept away. Then the entire population of the village lends a hand—unity is strength—and perhaps they will succeed in saving the bridge or in strengthening the dam. If not, there will be much toil and trouble in store for them. The forces of nature play a much greater rôle for the Asiatic than they do for us Europeans.

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Nissa is quite a little place, lying in a deep, steeply

shelving valley in among the Dark Hills. Its inhabitants are dark-hued, tough, strong, agile hillmen. Mettlesome antelopes race over the steep slopes and the knife-edge mountain ridges, where the solitary, blue-black peaks rise up to heaven. The air is thin, but sound travels far, perhaps because everything is so still. We are already approaching the glaciers—there are alpine flowers on the mountain slopes close by us. The water is crystal clear, filling the air with music, and the people are fond of singing.

The place lies 9000 feet above sea-level. Just south of the village is the 17,000 feet high Jay-tagh. I had hoped to be able to set up a trigonometric station there with a view over some of the highest peaks of Kun-lun. My assistants were four Taghliks, three of them eighteen years old and one a little older, my own Mongol Tomes, and the Chinese Lao Djao. Our first attempt failed. At about five o'clock in the afternoon, after we had already climbed 16,500 feet, we found a precipitous valley, at least 2500 feet deep, cutting us off from the summit.

"We had two alternatives: to spend the night in the stony desert without firing, or warm clothes other than what we had on us, or to go back to the camp and begin afresh from the other side. I inclined towards the former course, but when I looked at the thermometer and found the temperature was 21° F., I relented. We should have to expect 3° F., and I ordered retreat, to the great joy of the Taghliks. At first the descent was easy, but it grew steeper and steeper. The four fine boys thought the "path" first-class, and piloted us over ridges and down precipices at a break-neck speed. Soon the nature of the ground changed, and instead of dark, metallic blocks of rock we had the usual loose clay soil and unpleasant rain-gulleys. Here we had to go carefully, and even so would sometimes slide down a matter of fifty or sixty feet at top speed in a cloud of dust. At 7.30 we reached the place where I had expected we should come

down, and had ordered the horses to wait for us. Tomes, Lao Djang and I rode, and we got home at 9.40. The Taghliks ran level with the horses, in spite of having spent the whole day climbing; they are a strong race. I crept straight to bed with a racking headache and raging toothache. I had the same trouble yesterday evening, and took a morphia tablet to make me sleep; I must have some decent rest. This evening I have put the medicine chest away in the cold corner under the heavy money-box, so as not to fall for the temptation. They have a big fire out in the cooking tent, and Hadji has been sitting there relating his adventures of thirty years back, while I lay reading the same thing in Sir Aurel Stein's *Sand-buried Ruins of Khosan*."

The next day was a day of rest. On the 7th December we made another attempt on the top from the other side. At 4.10 in the afternoon—we had started in the early morning—we reached a ridge which I thought was the summit itself. Another bitter disappointment lay in store for us when we reached the top of it: once again a valley lay before us, cutting us off from the summit, and once again we had to beat a retreat.

"Cold, windy, overcast, the mountains partly covered in cloud. It would have taken us at least two hours to get to the top. Took a panorama, set up an *obo*,¹ could not rise to any theodolite measurements. It was not more than 12° F., but the wind made it very trying. Retreat. It was soon pitch dark, but we had a paraffin lamp. Some meddler had put it out of action by screwing the wick right down, and the holder was soldered fast, so that we could not get it up again, but a strip of shirt solved the problem. Some parts of the road would have been absolutely impossible in the dark, but we managed. We reached camp at 9.20. On the last stretch we had been going through a continuous cloud of

¹ An obo is a cairn, built generally of stones, sometimes of wood or simply mud, and afterwards "dedicated" by a gesture of the hands towards heaven and a bow.

dust: what with seven men scrambling down 2000 feet through a layer of dust eighteen inches deep, it should be easy to picture the result, and we looked the part on arrival. Hadji had seen our lantern from afar, and had hot tea and two pails of warm water waiting for us, so that I got a real bath. Incidentally, we saw a wonderful sight to-day, a flock of about fifty wild sheep which had taken fright, rushing in full career through a narrow gorge down a steep slope. They went in single file, hopping and prancing. Damnable toothache."

We could not waste any more time on that peak this trip. If ever I should be lucky enough on some future occasion to go back to Nissa, I know now how that peak has to be tackled; if only I am spared the toothache.

Liou-Dao-Tai had sent a *jaje* to accompany me on this journey, a kind of foreman, whose name was Tochta achon. He was brilliant in the matter of getting anything done and getting it done quickly, but woe betide his countrymen if they did not obey like lightning. An order had no sooner been given than it was followed by his sharp, "*chap, chap!*"—quick, quick—and a series of oaths. If the pace was still not to his liking, Tochta achon would explain to the victim the penalties in store for him, with the most horrible vituperation, and generally managed to apply an ungentle foot to the rear of the recalcitrant one. He was not very pleasant either to hear or to see in action, but he was effective. He rode his own horse and attended to its feeding himself—of course at the expense of the natives. They hated him heartily, and it gave them no sorrow when misfortune befell him.

In Karanghu-tagh, on the way back from Nissa, he had given his horse three times as much fodder as it ought to have had, in the hope of making it fat and flourishing, but with the result that the animal suddenly sickened. Tochta achon came to me in the middle of the night sobbing, in strange contrast to his usual coarse, fault-finding self. Every other

word that fell from his lips was Allah, every third, sahib, and every fourth, help. I referred him to Tomes, who knows about horses and has a good heart, and who actually got up in spite of the cold and dark. They rubbed the animal with handfuls of straw, but without avail. When I woke up in the morning, all was over. Tochta achon tried in vain to get the natives to buy the horse's flesh, but all he was able to sell was the hide. He was in despair, while the inhabitants felt that Providence was just. I could not help feeling sorry for him, in spite of everything, for with all his coarseness he was better than the average, and when he left me, I gave him a good tip.

I had another gentleman with me, Niaz Beg, who had orders to see that I took no photographs. He was much more polished in his manners, much uglier in his character, than Tochta. On the first day he was with me he made a terrible fuss when I took a few photographs in spite of his express prohibition. That evening, however, my servants took him on one side and oiled him according to instructions. "You are under orders to tell sahib that he is not to take any photographs. If sahib does not obey, that is his affair. If you behave sensibly, and do not make so much fuss, you can have quite a pleasant journey with us, and sahib is never ungrateful." Niaz Beg was very quiet after that and much more sensible.

Let us turn a few more pages in my diary! We are again at the top of a high peak, to get a view of the ice-covered caps of the main mountain range.

"Mist. Waited an hour. Worse. Decided to spend the night up here. It sounds unpleasant put like this: 'The 10th December, 1931. Height 12,500 feet. No wood, no water, no tent. Spending the night.' But much more cheerful if you add: 'Plenty of *tissek*, yak dung, which burns excellently. Two thermos flasks full of tea. A few pieces of bread.'"

It was bitterly cold all the same. Tomes was there too. He spent the whole night looking after the fire and raking

the embers over towards my feet. He himself was cold, and caught a bad chill then and there. A few days later he got really ill, and we had to stop to look after him. By that time we had got down to Hasha at the foot of the mountain. The natives objected; they wanted to get home in time for the festivities which were just upon us, and thought Tomes could quite well be left there by himself. This did not appeal to me. I knew why Tomes was ill, and also whom I had to thank that I was well myself, and we stayed. I gave him his medicine every morning, went out for a ride, and then sat and wrote and worked till evening.

One day we rode up the main valley until we came to a projection where a tributary valley runs down from the south-west. There was a terrace here about ninety feet high. We climbed up. The view was magnificent, and close upon us lay the ruins of an ancient town. It was extraordinarily interesting. I shouted to an old man who was passing below and asked him to have some hot tea ready for us in a little while, and we began to look around.

Along the south side of the wedge-shaped projection ran a moat and a strong wall. The town, or rather the fortress, had extended between this and the point. In the middle of the wall were the remains of a gate, and at the point of the wedge was another, much more remarkable, entrance. There in ancient days they had made their way in through a dug-out canal which ended in a closed-in shaft running upwards. The people on the terrace could let down a rope or ladder and admit those they wished. Relics like this of an ancient culture are scattered here and there throughout the land. A few days earlier we had come upon an *obo*, built of enormous blocks of stone, which obviously also dated from very early times when communications existed with inaccessible Tibet. I measured, mapped, and made notes, and when we had done we went down to the old man in the valley. Kadir achon had an unusually clean house, and was a very nice old fellow. He had

not only prepared tea, but had told his wife to make us a meal. Hot chicken broth with little white radishes, onions, spinach and dumplings was very welcome after the cold of the wind-swept terrace.

Kadir told us how they used to find old vases and such things up there. They did not dig from any archæological interest. The women went and spaded out earth from the ruined walls, which was then carried down in big baskets and spread over the fields, as it was believed to be excellent manure. Every now and then the pick would strike against something hard, generally a fragment of clay pottery, sometimes even a whole vase. These vases were of all sizes, from quite small ones to huge urns two or three feet high. It is always difficult for the foreign traveller to get hold of such things, for objects of archæological interest always seem to be credited by tradition with magical qualities. For example, one large jar was used for keeping rice in: the rice never came to an end, no matter how much was taken out. Meat was kept in another smaller one, which also had the peculiar quality that the meat kept fresh and good for any length of time, even in summer and in great heat.

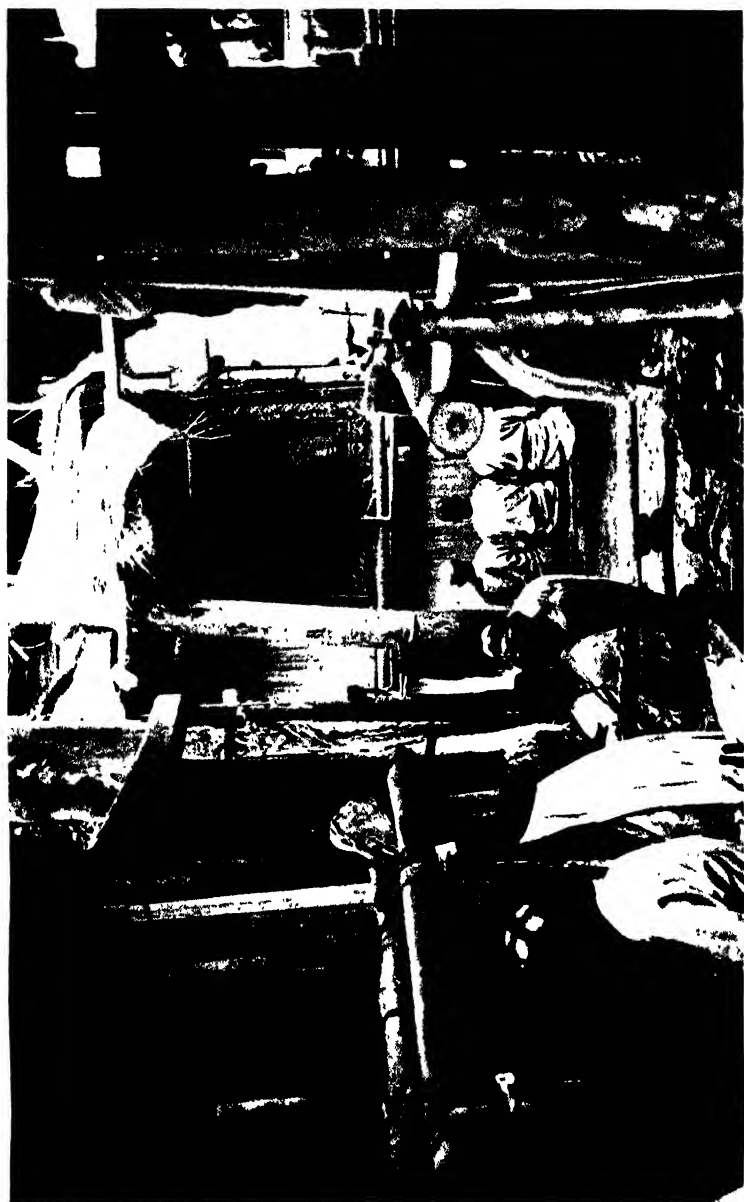
There was one little jar, which obviously came from up above, beside the open fireplace. It was cracked, but it was extremely beautiful. I looked at it, but did not show any particular interest. It was used for keeping melon seeds. When we had finished our meal and were taking our leave, I drew out a silver coin, which represented about six times the value of the meal we had had, or about two shillings in English money, and gave it to the old man. So as not to offend him or appear to be paying for the hospitality he had shown us, I asked him to accept it as a small gift, and perhaps buy some raiment with it for his little daughter, for the lassie was dancing round us without a stitch on her body although it was midwinter. When we went out to our horses, Kadir achon came after us and asked if he could give me something

in return? He held the jar in his hands. Need I say that I was pleased?

As soon as we got back to Hasha, I went straight in to Tomes with my acquisition. "If you had not been ill, I should never have come by this treasure, so you see how kind Providence is." Tomes shared my joy, and joy is an excellent medicine, a serious rival to the three which Hummel tried so hard to make the Turkis believe are Our Lord's three best: sunshine, fresh air, and water. That evening Tomes' temperature was normal!



*One man walks in front holding the halter, another walks behind
and holds the animal's tail*



The interior of a courtyard in the "Town of Rugs"

CHAPTER XVIII

Khotan—the Town of Rugs

KHOTAN has a large staff of officials: a Provincial Governor, a Burgomaster, a Colonel and a Customs Director, in addition to all the more usual dignitaries. The town is rich, and trade flourishes. Like many other towns in this part of the world, it is really two, Kone Shar and Jengi Shar, the old town and the new. Each half has its own bazaar day, when the streets are alive with people and bright with colour.

To get an idea of what life is like in this ancient town, which teems with historical interest, let us go and visit some of its high officials.* We will begin with Ma-tung-lin, the colonel. In a turning off the main street is a large barracks with several official residences. The right-hand side of the street is dominated by a gateway, with an inscription in Chinese characters in blue-black on a white ground running round the top of the arch. Two soldiers are on guard, Turkis as usual. Inside the doorway are two guns of the seventeenth-century mortar type. It never occurred to me that these were anything but ornaments, until I saw a little later what they could do when it came to real business.

The visitor is led in from the outer courtyard through a gate in a low wall into a glorious rose garden. Ma loved flowers. It was a large garden, enclosed by high walls on three sides and shaded by majestic poplars all round. On the far side lay a pond, full of white and pink lotus flowers. Beside this was a large open veranda, on slightly higher ground—a fascinating place that looked out over the whole sweet-smelling

sea of roses and the pond. An old, dark-leaved walnut tree cast its shade over one side, which was used in the summer for ceremonial dinners, and the practical Chinese often used to borrow this veranda and hold their dinner parties at Ma's, the whole ground being covered on these occasions with soft mats of subtle colourings.

Ma had been in Khotan for a long time and exploited his position in a very clever way, that was good for his purse at the moment, but bad for him in the long run. As commandant of the district he was supposed to have 400 soldiers, and received pay, clothing and supplies for that number. As the custom is in this country, he kept only half as many, i.e. 200. How were these to be selected? Well, as the country was at peace and the soldiers had nothing to do, it was best that they should have some occupation for their long hours of leisure. Khotan had long been famous for an outstanding industry—rug weaving. To begin with, Ma taught his soldiers to weave rugs, but by degrees he changed over to the opposite system, and engaged rug weavers as soldiers!

He had good taste, the flowers all round him testified to that, as much as did the carpets over all the floors. Beyond the veranda were large, spacious rooms furnished with almost feminine elegance. There was also a little dimly lighted recess with all the appliances for opium-smoking, though Ma himself did not use the dangerous drug. He was young, healthy and gay, and like all the other officials had many wives.

We will leave him to his domestic affairs and go on down the main street to look in on the wealthiest man in the town, Chuda-berdi-bey. After crossing a wide canal we turn sharp left, and in among a labyrinth of side streets come suddenly upon a little well-built mosque with the half-moon glittering above it in purest gold. Beside it lies a shady dam, and along that runs a bare, high, solid wall, built partly of fired tiles, bluish-grey in colour, of the same material as the little sanctuary itself.



The main street of Khotan



Chuda-berdi-bey, with his eldest son and daughter



Badrudin Khan and his grand-children

A double flight of steps leads up to the entrance, with doors of the usual Russian type. Inside them is a heavy bar, a very necessary protection against unwelcome guests. We pass through a cool antechamber into a long hall with windows that reach almost from floor to ceiling. Round the wall runs a low fixed bench, padded and upholstered in soft, dark-red velvet. The floor is covered with a single immense carpet from the bey's own workrooms. On one of the long sides is a beautifully ornamented fireplace, and round the walls are niches with pointed arches full of flowers. This is the banqueting hall. Our host prefers to receive his guests in the little courtyard, which is enclosed on three sides by large buildings, while the fourth opens on to a little garden. Whenever a guest is expected, the courtyard and the wide steps leading up to it are covered with soft carpets. He is fond of sitting there himself reading aloud to pious listeners, while his eldest son, or nice little daughter with the many black pigtailed, watches that his hookah keeps alight. After a cup of tea with Russian sweetmeats and biscuits we go on a tour of his estate.

We pass through a well-stocked stable, past fine storehouses, across an open courtyard, where a Russian *telega*¹ stands waiting, down to his shop on the main street. It is an ordinary little shop and not in any way impressive. This is not where his real business is carried on, it is simply a spy-hole for watching over the bazaar, and someone always sits there with ears well sharpened to report any fluctuation in the market prices. On the other side of the street by which we came are the weaving rooms, where hundreds of girls and old women are employed spinning wool and silk, and about thirty looms are working hard. Five people sit side by side at the largest of them, one only at the smallest. The warp is of cotton and the weft of sheep's wool; occasionally camel's wool is used, and sometimes, though much more rarely, silk. The most usual type of loom is for three persons. Two men

¹ A springless four-wheeled carriage.

and the wife of one of them will sit at it, knotting with agile hands, their quick eyes following the pattern from a design or another rug. The youngest child lies at its mother's breast, its cradle behind her, while the other children, not yet big enough to help, scramble round about. In a corner rather apart from the rest sit the most skilful workers, who work from their own heads without any pattern. The whole room is covered with a roof of rush carpets. In the winter it is impossible to work there.

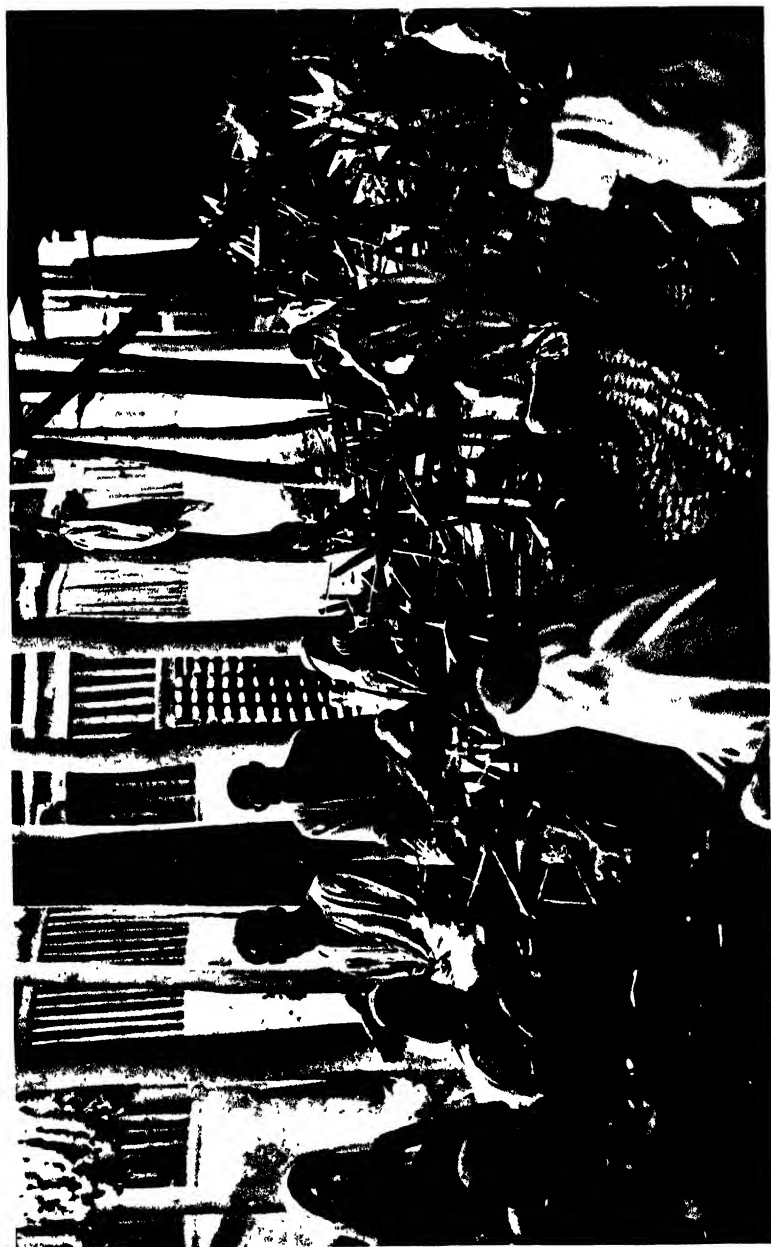
In the large rooms on the right there are fifty or so large iron vats boiling and bubbling. This is where the silk cocoons are boiling in lye, before being fished out with scoops of plaited reeds, and the fine thread drawn off and handed to the spinner close beside. It is an unenviable job. The hot lye injures the hands, and the workers are mostly shrivelled old women, with a few old men among them. A little farther on is the drying room, where all the cocoons are stored when they come in from the growers.

Just to the right of the door we came through is a raised dais with a broad bench and enough room for about thirty people. Here sits the bey on a rug and receives and weighs in every skein of silk as it is finished, at the same time keeping a watchful eye on the whole room. It is a lively scene—the spinning-wheels whirring, the vats simmering, the children playing and whining. Here is colour and brilliance, sunshine and shadow, and above all—stench.

It is only two minutes' walk back to Badrudin Khan's house. We go through a long serai laid out in terraces, where Indian rug merchants bargain for the finest products of Khotan, up a steep flight of steps, and out into a garden. Tall, flame-coloured lilies border a little dam to the left. In the middle of the garden stands an enormous *chadir*. The word really means a tent, but here in Khotan it has acquired a different meaning: a summer house that has no walls, so that all the winds of heaven blow through it. This is the favourite



*The serai, where Indian merchants bargained for the
finest products of Khotan*



The spinning-wheels whir in Khotan

resort, where no women are allowed; it is reserved for the men to celebrate *namaz*, their religious service, drink tea, smoke their hookahs or *chilem*, gossip, transact business, tell stories, eat pilau and, above all, sleep. The large room which opens on to the garden is *mehmanchane*, the guest chamber; here a magnificent *dosturchan* is prepared for those whom the old man wishes to honour. He always looked delighted if one called him Khan Sahib.

He himself lived in quite a tiny building on the other side of the garden. A wall sheltered his private domain from inquisitive eyes. Inside was the harem, which men could only enter on very rare occasions, when some very secret business was to be transacted, and all the women were well hidden away first.

I used to be up early in the morning and sometimes saw the ladies of the house then, when they came to the little dam in front of my window to fetch water. One of the daughters was the finest feminine type I had seen out there, with regular features, always clean and well dressed, and always with a flower in her hair. She was tall and lithe, like her father, and looked graceful carrying her heavy pails.

But Badrudin Khan's daughters were not the first at the dam. One of the Indians used to come out from the serai before sunrise to fetch his water supply for the day. He was tall and slim, and carried a rounded brass pitcher, which shone like burnished gold and must have held at least six gallons, balanced on his head. Water is holy to the Indian, and he filled his bailer with loving care and emptied it slowly into the water jar. Sometimes he was unlucky, and someone would come up just as he was filling his jar; then he would empty it out and rinse it carefully round before beginning his ceremonial act all over again.

I used to sit behind my curtain and watch the absolute ease with which he picked up his pitcher and almost danced away with it on tiptoe. Then life began to move more quickly,

everyone came to fetch their water, and an old woman brought a shining washbasin to Khan Sahib, who himself slept in the open air in a little corner of his *chadir*. After he had washed he would spread out his rolled-up prayer mat, his eldest son, Jamal Khan, would come out with his, and together father and son would perform their morning devotions. After that I used to join them, and all four of us—for Tomes was always of the party—would sit drinking tea together and enjoy the beauties of nature. The whole of the rest of the day was an incessant running and chattering, except for the midday hours when everyone slept.

A visit to Khan Sahib's house was always a pleasure. Humour shone from the old man's little screwed-up eyes as he told an amusing anecdote; his manner of stroking his long white beard was that of a *grand seigneur*. What happiness and rejoicing there was when he handed round sweets to his grandchildren, who all adored their grandfather!

His home had none of the splendour of Ma-tung-lin's proud yamen, nor had he costly buildings and clattering looms to testify to his wealth; but wealth was there none the less, and was one of the reasons for the general respect in which his family was held, though his had been won by long years of fair dealing in which sound sense and a good heart combined. It was a pleasant home—but may Allah in his wisdom and goodness grant him a speedy remedy against fleas; he needs it!

The best should always be kept to the last. There is in Khotan one personality who stands out head and shoulders above all the rest, a man of a nobility of character one does not often meet. He is known all over the town by the Turki-sounding name of Karekin bey. His real name is Karekin Moldovack. He has lived in Khotan for thirty years, the faithful guardian of a precious treasure: the art of dyeing wool with vegetable dyes. He was the only one who did not sell himself to the vulgar modern craze for crude aniline dyes. In the



The 83-year-old Karekin Moldovack, faithful guardian of a precious treasure



Liou-Dao-Tai and his family



Erik Norin at his plane-table

big rug-making factories of Khotan and Lop they have forgotten the original patterns and the soft, lustrous colours which used to be the distinguishing mark of the Khotan rugs, and have abandoned themselves to orgies of colour and mongrel patterns from China, the results of which are painful to look at.

Mr. Moldovack was eighty-three years old, but he still had full possession of all his faculties. He ran his rug-making and silk-weaving industry on model lines, without sucking all the life-blood from his people. He taught them how to mix colours to produce new and original shades. He collected typical examples of the fine old products of the country, and wrote out recipes for making dyes. There was always a row of pans boiling in his courtyard, full of bark and roots, seeds and skins, which together gave the lasting, shimmering, matt colours, the hall-mark of quality. The beauty of the finest of the old rugs was due not merely to the exquisite dyes, but to the wool they were made of. It is only when the very finest, velvety-soft lamb's wool is used that that mother-of-pearl shimmer can be got in the colours.

The European traveller was also fascinated by his first-class library, by the cosiness of his little home, where excellent coffee was served—and first and foremost by his own winning personality. I spent many a happy hour with him. He was a true and loyal friend, always helpful, always ready to give good advice, and well qualified to do so by his intimate knowledge of the land and people; self-sacrificing, dependable, and with a heart of gold.

Mr. Moldovack and I celebrated Christmas, 1931, together. By New Year's Day Vorotnikoff was back from the mountains, and we celebrated that too in the old man's home. My Swedish "Home Cookery Book" and I were jointly responsible for the dinner. I remember that the dishes included omelette with morel, roast duck with Russian peas and potato croquettes, and walnut cream. This was the first time in twenty-

two years that Mr. Moldovack had had company for Christmas, and he was radiantly happy. As I said before, he was expert at making coffee, and this formed the climax of the dinner, together with a little glass of liqueur and a toast for all the dear ones who were so far away and yet so near.

CHAPTER XIX

To Yarkand and the Swedish Missionaries

ON the 11th January, 1932, we were ready to set out again, this time westwards towards Yarkand. Part of our baggage was to be carried on the donkeys we had used before in Karanghu-taggh. These were in charge of a stalwart, self-assertive Turki, Churuk achon, who was a strict observer of the Koran, and insisted on everything being done according to ritual. A white lamb was slaughtered early in the morning of the day before our departure. The velvety-soft, frizzy skin was cut into long thin strips, and a collar made of them for each of the donkeys. The meat was cooked, and the fat of the tail used to make cakes—not the usual kind, which are the size of a dessert spoon, but enormous ones about two feet in diameter. All the meat was piled up on these big cakes, and a large bunch of carrots and radishes laid on another. Then a molla was summoned, and he prayed for Allah's protection, for a prosperous journey for those who were going away, and health and peace for those who remained behind. Meantime, Churuk achon and his second in command, Tursun achon, stood with the cakes of bread held high above their heads as a sacrifice to the All-wise One. Allah only needed to *see* the good intention. The donkeys stood all round in a wide circle with their heads turned inwards, sniffing. They evidently knew that their share in the feast was coming. Churuk and Tursun went all round holding out their burdens above the donkeys' heads, and when they had completed the circuit, a cloth was spread on the ground, and the bread and meat laid on it. The vegetables were shared out among the

animals, the bread and meat among the men. There must have been about forty people there, and everything edible disappeared in a flash.

Then we began to load up. Things grew lively, and the molla did well to keep out of the way. The language of Turkis when they are in a hurry is not exactly flowery, it is heavily sulphurous. I sat perched on the roof, where I could have my eye on everything, and directed operations. The most important word was *Asta!*—pronounced not with feminine softness but forcefully, rather long-drawn-out, and with the stress evenly divided—“Carefully!”

In the evening, when the tent was opened, there lay beside my bed a beautiful, warm Khotan rug, which has accompanied me faithfully ever since—Mr. Moldovack’s parting gift.

We had twelve camels with us in addition to the donkeys, for I was planning to make a trip through the desert from Guma, north of the ordinary road. The provisions for that journey were a sack of bread and a whole roast sheep, and ice instead of barrels of water. The donkeys took the greater part of the baggage by the main road, while Vorotnikoff had set out earlier from Khotan with the meteorological apparatus, and was already in Yarkand by now carrying out his observations.

That little desert journey proved very interesting. I did one silly thing which made it more difficult than it need have been, forgetting to take any fuel. We were six days getting to Yarkand. The last part of the march was the most interesting, for we found a large area far to the east of Tiznaf-darya that was rich in vegetation, and had even been intended some years before for cultivation. The river had flowed through it at that time in an old channel, but now it was gone again.

Just beside Tiznaf-darya lay an immense sand-dune dividing the desert from the cultivated plain, the oasis. There was no vegetation on either of its slopes; it ran like a mountain ridge along the river side, and no one would have believed

that just beyond it lay such rich vegetation. The camels fairly swam down the loose sand of its western slope, and there between ancient poplar trees, only a few steps away, ran a canal with clear, fresh water. The animals stood along its edge and gulped down the best of all drinks. A little higher up lay the Turkis on their stomachs lapping it, and thirty feet higher still stood a half-naked urchin and—*honi soit qui mal y pense*—"It doesn't matter, when the water has flowed three steps Allah—praised and glorified be his holy name—has cleansed it."

We reached Yarkand late on the night of the 26th January, 1932. How wonderful it was just to speak one's native tongue again! Of course I both slept and ate with the self-sacrificing Swedish missionaries. One of them moved into a cupboard and gave me his glorious sunny room. In the morning we had prayers, and someone gave a little sermon, and then we sang a hymn.

Little by little Norin reached Yarkand too, bringing with him a very amiable and cheerful botanist, Dr. Liou Chen Ngo. So at last we were together again, Norin and I. Now we proposed to play our big stake and to make the great journey of our lives, a journey that had so long been the centre of our dreams and our longings.

Yarkand was an ideal place for making preparations. The Swedish missionaries helped us in a thousand ways, though the valuable help they gave us in making purchases, and with advice about transport, was no greater than the pleasure we found in sharing the bread and enjoying the company of people whom one *had* to like.

We were not spoilt! My diary records in one place: "We live like princes! Oatmeal porridge, eggs, anchovies, rissoles and potatoes, and as much coffee as we can drink."

From the time of our arrival until the 11th March, when we left the town, my diary is crammed with the most enthusiastic superlatives about our newly acquired friends. It was a

pleasure to see these missionaries fighting for their high ideals—not on the doctrine that “the end justifies the means”, but on a quite different principle, which no one could fail to appreciate deeply, a principle which can best be expressed by the single, but comprehensive word, love.

Quite apart from the question of whether such a fight is successful or not, it deserves the greatest respect. There in Chinese Turkestan they were waging it in one of the greatest strongholds of Mohammedanism, sometimes under the most difficult conditions imaginable, but always with courage and hope and a firm faith in the ultimate victory of their ideals. I remember well defining the missionaries—perhaps I was thinking in particular of one of them—in a letter I wrote from Yarkand, as being composed of two elements: a glowing heart, and self-sacrificing kindness.

When we went away, we left friends for life. Norin went first. Their farewell to me, as I stood in my white Swedish student's cap in a meadow green with spring in glorious sunshine, to the strains of “Thou ancient, thou free, thou mountainous North”, is one of the memories that has etched itself into my mind for all time.

Such memories and such people are a very present help in times of trouble.

Revolution has swept over the land since then. Fanaticism has celebrated orgies—the cruelty of the Mohammedans knows no bounds. The missionaries have collected some heart-rending descriptions of this time of horror in a little book called *Your Brother's Blood Calls*. Sweden's little cultural outpost has passed through some hard times, and one of the young Christians, the gifted Habil, suffered a martyr's death.

CHAPTER XX

Vorotnikoff—Meteorologist and Psychologist

OUR preparations were completed in Karghalik. From there we sent one provision column after another southwards, and the stores were laid up in the mountains.

My old friend Liou Dao-Tai had exchanged his more distinguished position as Governor of the Province for the more lucrative one of burgomaster of Karghalik. Thanks to our Dr. Liou's diplomatic talents and Liou Dao-Tai's kindness, the business of customs and visas was dispatched without any difficulty. On the 23rd March, 1932, we were ready to leave the town. The last hours were intense, and our heads were in a whirl. *Serr, tängä, pol, datchen, miskal, fen, cherek, djin*—coins and measures—were all jumbled up with horses, mules, donkeys, natives, tents and cases. The great thing was that nothing should be forgotten.

Norin and Liou set off at midday. By the afternoon I was ready too. Thirty-two donkeys headed the procession under Churuk achon, followed by fifty horses under Abdu Rehim, my new caravan bashi, who, like Churuk achon, was a fine fellow.

I had engaged fifteen extra servants for this first march, which was to be quite short. So often there is trouble at the beginning. The animals are not accustomed to their burdens, they are easily frightened, they have a superfluity of energy from standing so long in their stalls. Suddenly one of our many stallions took fright, and bolted the whole length of the caravan. It was like putting a match to gunpowder; all

the animals stampeded in every direction. The natives threw off their fur coats, their jackets, their shirts, and toiled for dear life with the upper part of their bodies naked, sweaty and breathless, unloading, loading up, straightening, catching, tying, all in a colossal cloud of dust. By the time we had got things more or less in hand, all the hired men, who were only there to help for the first few days, had disappeared.

We encamped in the middle of a field without putting up the tents. It was an absolute inferno. It was not until eleven o'clock that I had the animals quietened and could count them by the light of a lantern. One horse was missing, but by midnight we had caught it too. My diary the next day recounts briefly: "24-3. March to Camp 2. Besh-terek. Early to bed, tired and all in." But the animals soon settled down, and the marches passed off peacefully and steadily—southwards—upwards.

Our third camp was at Kōk-yar, the customs station on the road to India. I always used to have a thermos flask full of tea with me during marches; it made a kind of reserve stores, and could be used in inhabited areas for "elevenses". Vorotnikoff had one too; they were made of steel and lasted us the whole expedition, altogether very useful. But when we got to Kōk-yar, Vorotnikoff's thermos flask was empty, although we had not drunk any tea that day. The inference was clear.

Among all the quantities of new servants there were, unfortunately, quite a number who had never learnt to behave. We had noticed on other occasions that somebody had been at the sack of *talkan*, and the raisins had been tampered with too. It was tiresome. The *talkan*—flour baked in fat—was an important reserve store, intended for occasions when we ran short of food. A handful of this light-red, sweetish flour, stirred round with a little water or mixed with snow, makes an excellent dish which satisfies both hunger and thirst. The raisins too were an important item, as they represented the main part of our vitamin supply. This petty pilfer-

ing must be put a stop to, and here was our chance. Vorotnikoff had a brainwave.

We called all the servants into the tent, and they knelt in a semicircle with their hands tucked into their wide, padded sleeves, while Vorotnikoff and I sat on a packing-case in the centre with the thermos flask between us.

Which of you has been drinking out of this flask? No one, absolutely no one. It was very unfortunate. The fact was that Vorotnikoff used that flask to keep some medicine in which he washed his feet with in the evenings.

There was a deathly silence. One of the young urchins turned pale, then greyish-green with fright, and began to get convulsions in the region of his stomach. Suddenly he darted out through the tent door.

Thanks to much practice, we had developed a certain amount of histrionic talent. I kept a perfectly straight face and asked again of those who remained: "Are you certain it was none of you?" Oh no, they all said with one voice, none of them would ever dream of anything so stupid and foolish as to meddle with sahib's things without permission. We told them they could go, and Vorotnikoff and I sat on, enjoying the situation and waiting.

After a few minutes old Hashim came in, the father of the boy who had turned so pale about the gills. He was in despair, as he told us that it really was his son who had been so simple and stupid and had drunk that terrible medicine, and the tears trickled down his long white beard. He was absolutely beside himself with fright.

My heart softened—naturally—and I comforted him. "My dear fellow, it isn't as bad as all that. We have *more* of that medicine." Alas, it was of no avail; he cried out with a despairing gesture: "Has sahib no heart at all? What is to be done with my boy? He is mortally sick. Is there no antidote?"

Oh, the boy. Yes, we hadn't thought about him. Anti-

dote? N—o. At least, wait—I stroked my beard, symbol of wisdom, and looked thoughtful—perhaps I have something that might do. I too had had a brainwave.

There was of course quinine in the medicine chest, the usual means for inducing perspiration and bringing down temperature, which is so bitter that it brings tears to one's eyes even to think of it—more bitter than despised love. There was no doubt about it, *quinine* was the antidote.

I crushed two tablets and dissolved them in a cup of water. "Take this and give him a teaspoonful every quarter of an hour, so that he never loses the taste of it out of his mouth. And wrap him up warmly, so that he perspires. We will hope that, with Our Lord's help, this will drive the mischief out of his body."

Hashim withdrew backwards out of the tent with his hand on his heart, humbly grateful and happy. A gleam of hope shone in his eyes.

Next morning, before the sun was up, he was back in my tent—radiant! "Would sahib believe, it has really worked. My boy is quite well again to-day." "He must have a marvellously strong constitution," I replied, and it was no more than the truth.

Gradually the natives began to understand that it was to their own interest to obey our orders, and we became good friends and got on very well.

In Kòk-yar also I saw Norin giving his cook his monthly lesson. Lao Wang was a paragon, his food was always ready in time and always good, he was always cheerful and industrious; but sometimes the washing-up was a little sketchy. At lunch Norin gazed attentively at his plate. "Wang!" he called sternly. Wang's friendly face appeared in the tent opening, but fell at once when he saw his master displeased and angry. Norin handed him the plate in silence but with eloquent looks. Wang disappeared as though he had been shot from a gun, and returned ten seconds later with a brilliantly

polished plate. Norin looked at it, already satisfied internally, but externally—no! Again the ominous call, "Wang," was heard. Wang was back like lightning. The plate went out again. A few minutes passed, then Wang appeared with a clean white apron, a clean napkin on his arm, and a burning hot plate in his hand. When he had got outside this time, Norin burst out laughing. "Well, that will last for a month at least."

Our first provision depot in the desert was at Kulan-öldi. Transport became a more and more difficult problem the farther into the hills we penetrated. We had brought some sacks of sun-dried carrots as a special aid for the horses and donkeys, in the hope that they would supply the lack of vitamins. The road was strewn all the way with the whitened bones—sometimes whole skeletons—of transport animals. It must have been oppressive for our four-footed friends to journey on, day in, day out, and never get away from that sight. The whole of the route from the Kara-koram pass to Leh in Ladakh is marked out in this gruesome way. The camping-grounds—many of them with macabre names such as Dowlät-beg-öldi, "where the happy beg died"—are easily recognizable by their piles of bones, sometimes heaped into fantastically shaped marks.

Our last big store of grain and rice straw was at Ak-tagh. There we had to part with Vorotnikoff. His health was too delicate, and the strain was intense. The worst difficulty was the great altitude. We had reached 14,900 feet, and as he could not stand the thin air there—he got fainting fits and nose-bleeding, typical of altitude sickness—it was obvious that we could not take him with us for the rest of the way, when we should go over passes more than 19,500 feet high, and travel for months at an average height of about 16,500 feet, never coming down below 15,800 feet. There was nothing for it but send him back to Yarkand.

Vorotnikoff was a fine lad. He knew how glad we had

been to have him with us to carry out the meteorological observations, which were tremendously important for us, and asked if he could not at any rate stay on in Ak-tagh. He believed that he would soon become accustomed to the height. He knew that it would be an invaluable help to us if he could stay on in Ak-tagh and make regular observations. It was a severe temptation—and I fell for it and let him stay. Perhaps it was in any case the wisest thing to do. With his devotion to his work, it might have injured him more mentally to have to go back, than it could weaken him physically to stay.

He did his work perfectly and held out there, thanks to an iron will. Ak-tagh, "The White Mountain", was a frightful place; it was fourteen days' march to the nearest human habitation. His neighbours were the wolf and the lynx. The water was drinkable but not good, and in any case was scarce. There was little pasturage, fuel had to be dug laboriously out of the ground—it was the roots of *Artemisia*—on a slope two miles away. He stayed for two months in that cold, windy spot with a single servant and a little donkey for transport. It was an achievement!

Erik Norin said in a speech at a dinner given in Peiping in honour of Sven Hedin's seventieth birthday: "Your enthusiasm, your strength of will, your indomitable patience, guided our steps and left their mark on every piece of scientific work we accomplished. It was this infectious enthusiasm that sustained Vorotnikoff, and enabled him to stay for two months at the corpse-strewn camping-ground of Ak-tagh, at a height of 14,900 feet, and carry out an uninterrupted series of meteorological observations."

I parted from him sad at heart; who could have known that, only a few months later, fate would bring us together again?

CHAPTER XXI

Over the Kara-koram Pass—*Via Dolorosa*

NORIN and I chose different routes for the next part of the way. He went with a small caravan by a previously unknown northern route, while Dr. Liou and I continued along the main Kara-koram road. Hedin has called it *Via dolorosa*. "Not without cause," he says, "is it marked in red on the map. In reality it is marked in blood."

At Balti-brangza, just before the pass, lay the bodies of three men who had quite recently succumbed. Churuk achon, himself suffering badly from altitude sickness, saw them decently buried and a little heap of stones laid over each for protection against the wolves. It was cold. We had no more fuel than was needed for the cooking.

At the last camp I had nearly killed one of our men, Mahmut achon, the tallest of all our servants and one of the very best. I had taken an astronomical determination of position, and had told the boys to build a stone *obo* to mark the place. When I went to look at it just before we left, I found it was carelessly built, and began to wedge in some small stones myself to make it stronger. This brought it down, and the very top stone went crashing down on the other side of a bank of earth, where Mahmut was lying, altitude sick. The stone hit him on the head—fortunately the top of the skull and not the temple. He was not killed, but the wound bled profusely. That evening at Balti-brangza he was bright and well, and I was greatly relieved. Not only had he taken no harm—the bleeding had done him good, and the altitude sickness had passed off!

The Turkis have a way of sticking a coarse awl into their horses' noses until the blood spurts, as soon as their animals show signs of altitude sickness. There is another method, also frequently used, which looks even more cruel—to drive the whip handle hard up the animal's nostrils so that some of the veins are broken. Strange as it may sound, it must be admitted that, in some cases at any rate, this treatment works, and I know one case of a Turki who had the sickness so badly that he was unconscious, whom his comrades saved by sticking an awl right through his nose.

On the morning of the 13th we were up early. We were going over the Kara-koram pass itself. We had now twenty-three servants and about 100 animals. I quote from my diary:

"At half-past seven a deputation came in from the servants and declared that it was impossible to climb. We should all perish if we tried. Cut off further discussion by ordering: 'Load up the animals. Quickly!' Several of the horses could only take quite small burdens. They looked as though they were intoxicated. We reached the pass at 3.20 p.m. One horse collapsed just before it. When we got on to it, I thought the worst was over, but it was just the reverse. First came a heavy snowstorm, but thank God it was quickly over. Still, it lasted long enough to chill us right through. On the other side there were huge snowdrifts. One horse after another went rolling down. It was very serious. We had to encamp on rough ground 4500 feet from the pass. We had fuel, but only enough for the cooking. No work was done in the camp. We were too tired, lack of fuel is fatal. Almost everyone was feeling poorly and only wanted to sleep.

"*The 14th.* Two more horses died during the night, fine plump animals. Couldn't stand the height. The day's march was intended to be twenty-one miles, turned out seven. The snow made it impossible to move faster. The road down from the pass is strewn with dead animals. Not a trace of vegetation. The day warm and sunny, signs of wolves every-

where. Dr. Liou gives me a little lesson in Chinese every day. He himself is working hard at his English."

At Dowlät-beg-öldi, just beyond the pass—the name, as pointed out above, is in keeping with this ghastly road—we turned off eastwards to strike into the road Sven Hedin took in 1908. There was hardly a trace of vegetation, and the strain on our maize supply was great. The animals suffered from the cold and the height, but we got along, even if with difficulty. Determining our positions in the cold and the incessant wind was one of the worst hardships.

On the 20th we were proceeding straight along a broad valley when Tomes suddenly caught sight of a herd of yak some distance off. He, Roz achon and I were a good way ahead of the main caravan. The other two of us dropped down behind a mound, leaving Tomes to glide on ahead. We were in luck, the wind was coming towards us. Tomes was a hunter of standing, and we felt pretty certain of a good addition to our provisions. But we were wrong. Tomes suddenly stood straight up and waved to us. We jumped up on to our mound and looked. Not a sign of the animals. They must have run up some side valley. But why was Tomes still waving so frantically? Ah, there was the "herd" again, coming up out of a ravine. It was Norin and his caravan! We had not expected him yet, and the rejoicings were great. He had found a better road than the one we had come by.

On the 27th April we were again marching eastwards. Norin went off to the north, and we sent two men to Karghalik to get more maize for the animals. That day we saw two herds of antelopes at a distance, one of males and the other of females. Dr. Liou found some good fossils, I drew the map. We had one misfortune, however: two horses and one donkey died. It was the storms and thin air, far more than the cold, that killed the animals. Twenty of them had died already.

On the 1st May, 1932, we came out on to the great Ak-sai-chin plain, where the wind was worse than ever. The night

had been bad, with a severe storm. The animals had not had any water in the evening, and had broken loose and got away. We moved on with the few of them that still remained in the camp to Ak-sai-chin lake, where Sven Hedin had once made his camp, and where Dr. Trinkler had been only a few years before. The night of the storm had cost us thirteen animals. We had hoped that Ak-sai-chin would provide good pasturage, and our animals get back their strength there; but we were disappointed. The Chief had described the place as a real oasis, and we thought many hard thoughts about him at the time. It turned out later that we were both right. I came back there at the end of July, and then it *was* an oasis.

When Norin joined me at Ak-sai-chin on the 5th May, and we were able to discuss the difficulties of the situation together, we decided there was nothing to do but part. There was no possibility of continuing the entire transport any farther with the animals we had at our disposal. Maize supplies were running short, and the beasts were dying one after another. One of us had to go back to civilization to get some healthy animals. It was decided that Norin and Liou should go on eastwards with the thirty-three relatively strong donkeys and mules, while I took practically the whole of our travelling funds and went back to the inhabited districts to the north to equip a fresh caravan, and then try to strike out another path eastwards. Where we should meet again it was not easy to say. Each was to fend for himself henceforward. We parted with a long handshake on the 9th May.

I went a little way with Norin's caravan when it set out, just long enough to see one of the donkeys sink down, unable to get up again. It was a bad omen, and they had a hard journey. At the end they and their servants had to carry the most indispensable things on their own backs, and the natives had almost given up hope. But Norin's stubborn will overcame the difficulties, and they reached civilization again, with *one* of their animals alive.



“Via Dolorosa”



*The boundary mark between China and India in the Kara-koram Pass,
18,200 feet above sea-level*



Among the Kirghiz at Keng-shewar—a yak with her calf

CHAPTER XXII

The Advantages of Jiu-Jitsu

AS soon as I had set up my pendulum station at Ak-sai-chin, I went back by a different route across one of the "white patches" on the map, and reached Keng-shewar on the 7th June. I had sent a message to Vorotnikoff at Ak-tagh, and he was there to meet me. He took charge of the money and went for me to Sanju to get new animals and exchange what we had for others in better condition. Once more the missionaries gave us every help. While Vorotnikoff was away getting the fresh batch of animals, I occupied myself working in the Kirghiz mountains in the district between Keng-shewar and Kawak, and on over "white" ground to the area immediately south of Haji-langar. I waited there for the new animals, and when they joined me we set out for our old camp at Ak-sai-chin lake. The lively little Dowlät and the experienced old mountaineer Awot achon had been there for two and a half months, looking after the stores we had left behind.

On the 23rd July we were only two days' march away from their camp at the south-west corner of Ak-sai-chin lake. The distance was forty miles, just right for two marches, and half-way lay a well-defined chain of hills, where we were to encamp that evening. The main caravan, under the lame but competent Abdu Rehim, was to follow the known and easily negotiable route that ran in a wide circle to the south, while I myself, with Tomes, two Turkis, and a little donkey to carry the instruments, took a previously unexplored short cut. According

to the map a small lake lay between my proposed route and the course the main caravan was to follow. We reached that lake at about five o'clock in the afternoon. But it was not what the map had led us to expect; it extended some distance to the north, or rather it was two lakes, connected by a narrow sound. To go round either of them would have taken several hours. Our chain of hills, as the crow flies, was not more than about three miles away. The best course seemed to be to try and wade through the narrow sound so as to reach camp before it grew dark, and the boys took off their shoes and stockings—I myself had watertight boots.

It always used to be cloudy in the day-time on these high plateaux, but generally it cleared in the late afternoon. This particular day, however, was not quite like the general run. I shall never forget it.

The clouds gathered closer and closer. The clean, white cumulus of the morning gave place to ominous-looking dark-grey nimbus. The storm broke just as we waded out into the sound, the thunder pealed and the lightning cut deep scars across the sky. Suddenly the rain came in a deluge. A momentary lull was followed by a violent scurry of hail, and then the rain set in again heavier than ever.

This particular spot was the lowest in a large area, and all the rivers flowed towards it from every point of the compass. The water rose, and the shores of the lakes being flat, this meant that their area rapidly increased, and the sound grew to many times its original breadth. Of course the water was shallow, but things were bad enough all the same. The ground was a fine loose clay soil, which became soft and treacly to walk through. For us humans it was not too bad, for we had large feet with good surfaces for support, but a donkey has thin legs and quite small hooves. At every step she sank down into the mud, and found it harder and harder to draw her feet out again. At last she stuck fast. We had all the packs off her like lightning and tried to lift her up, but it was more

than we could do. Then I decided to hurry on ahead to get help from the camp, while Tomes and the Turkis tried to hold the donkey up.

We had four horses at the camp. I expected to be back in no time with a few men, some poles and ropes, and the situation would be saved. But the rain was terrible, it was a positive cloud-burst. I was soaked to the skin, and however much you want to, you cannot walk fast when your feet stick to the ground at each step you take, and your boots are full of water. Besides, it was getting late in the evening. We had been walking since early morning, and had eaten nothing since breakfast. It took me a little time to reach the promontory.

There was no sign of the camp, and I climbed up a hillock about 150 feet high to look for it. I scanned the terrain inch by inch with my field-glasses. No tents, no men, no animals, no fire, no smoke. Where had they got to?

They had not obeyed my orders to go on to the promontory, but had encamped somewhere else, I had no idea where. By now it was almost six o'clock, and it was nearly dark; twilight only lasts a few short moments there. My pocket-lamp was away in the saddle-bags with the things the donkey had been carrying. My matches were soaked, and that meant that there was no possibility of lighting a fire. In any case all available fuel was drenched, so that it really made no difference.

What had happened at the scene of the tragedy? It was not difficult to guess. Of course they would not have been able to hold the poor animal up very long, it must have drowned. I reckoned too that the servants would have taken the things up on to some safe hillock and encamped there for the night with the aid of the donkey's saddle-cloths. I guessed right, apart from the fact that Tomes did not stay with the others, when the donkey drowned, but followed in my tracks to tell me what had happened.

I was entirely alone. What was I to do? To search for

Abdu Rehim and his camp was hopeless. To try and retrace my steps, without light—equally hopeless. There remained one possibility. We had left Dowlât and Awot about twenty miles away to the east, looking after the stores we had to dump there when we turned back to get the new animals. I knew that I could find my way to that camp in the dark. So: forward march!

I moved slowly with heavy steps. Suddenly it occurred to me that perhaps the camp might be quite near after all, and that they might be out looking for us, and would hear a shout. I shouted, I yelled. Far away to the west I thought I heard an answer, and I shouted again, I bellowed at the top of my voice. No, that time there was no answer.

I went on again grimly, for perhaps a quarter of an hour, and then I thought: when all is said and done, it costs nothing to shout, there is no harm in doing it again. This time there actually came an answering shout, quite close at hand. I sank down on the ground and waited. The voice came nearer; an angry voice. It was Tomes, who with his sharp eyes had succeeded in following my tracks. He thought he had found the main camp, and was very indignant that there was no fire. When he saw that it was I, his master, and no other, he grew considerably more polite in his tone, though one could still detect a certain degree of disappointment that it was only me. In any case it was good to be two.

Tomes told me that the donkey had drowned and the two Turkis had found night quarters for themselves. We discussed what to do about the camp, and he thought, like me, that the best thing was to continue eastwards towards the Ak-sai-chin camp. It was a melancholy march. Every now and then we flung ourselves down on the ground, sitting back to back to support each other a little while we rested. We comforted ourselves with the thought of what we would do to Abdu Rehim and his natives when we got hold of them, and we glowed to think of it. If burning rage had the power to



A "white patch" on the map investigated by Erik Norin



*A robber band ?
The robber chief, second from the right, was called Ambolt. On the extreme right, Tones ;
on the extreme left, Tavakkul*

warm, we should have been extremely comfortable. As it was, we were heartily miserable. Still, we were lucky in one way: the moon came out and shone, and we found our way easily, but it shone not brightly but through low, light clouds, so that the temperature remained tolerable.

We reached the camp at seven o'clock on the morning of the 24th, and dug Dowlät and Awot out of bed. They thought we must have dropped straight from heaven, coming at that strange time of day, and with no trace of a caravan. Soon the tea was simmering, the first necessity of life in the high plateaux of Tibet, and we began to revive. This time I did not get away entirely unscathed. I had been wearing my excellent boots, which were watertight, but the water had got in through the tops, my stockings had felted, and I had two nasty sores on each foot, so that I had to keep quiet until the 5th August. I spent the time developing my photographs and arranging my herbarium.

The main caravan arrived at the Ak-sai-chin camp on the 24th July, and I read the riot act to Abdu Rehim and all his suite. "If ever it happens again that anyone is not in camp in the evening, and there is not a large fire burning on high ground where it is clearly visible, I warn you to look out for yourselves."

There are two things that one can threaten with, both equally terrifying: a reduction of wages, or—a beating. Perhaps the latter sounds a little brutal? But in actual fact it was an excellent method, absolutely the right one. I had never tried it until I was in Yarkand, and then I was taught its virtues by one of the missionaries—by a lady!

One day a new servant had been up to some mischief, and I dismissed him summarily. A lovely, womanly being came straightway in to see me, and said: "How could you be so hard on that poor fellow and dismiss him for such a little thing? It would have been quite enough if you had given him a good beating!" I tried to defend myself. "You

can't do that to a full-grown man?" "Don't be so silly, it's the only thing these people have any respect for. Try it! You will find it works wonders!"

Alas, maladies that needed that medicine were of frequent occurrence. I had one "case" in Ak-tagh. I forget what it was that Sherip achon had been up to, but I was livid with rage and I let fly at him. Just to be on the safe side, I dismissed him afterwards too. That was not altogether in the true missionary spirit, I admit, but there it is—I was as angry as that. When Vorotnikoff sent me those new animals some months later, a few new servants came with them too. To my intense surprise I saw among them—Sherip achon!

He came up to me, rather nervous and frightened—he was a big, strong fellow—and wondered whether I would take him on again, for he had "been so happy with sahib before!" Of course I took him on, and he became one of our very best servants.

Anyone personally acquainted with the author's size and physique might perhaps think that this was rather dangerous. Suppose one of those Turkis had happened to think of hitting back?

Ah, dear reader, that contingency was provided against. Just after we left Yarkand, I gathered all the servants together outside the tent one evening. Who was the strongest? They pointed to Tursun achon, one of the youngest, but a man with the strength of two. "Come on, my boy, we will try a bout of arm-twisting!" (A form of Jiu-Jitsu.)

Tursun achon had never done it before, but I had learnt the art from my father, who was an expert at this trick.

First with the right arm, then, and again with the left just for safety's sake. Twice in succession Tursun achon lay low. The ease with which this particular trick is accomplished by those who know it added twofold to the effect. The expressions on the faces of the onlookers testified to their amazement.

The servants' respect for their master was great. He was strong, he was old, and he was wise, as his beard proved, which was impressively long, curly and red. But handsome???

CHAPTER XXIII

Goal of Our Ambitions

OUR proud caravan moved across the endless plains of Chang Tang: 90 donkeys, 4 horses, 3 mules, 2 goats, 1 dog, 13 Turkis, 1 Mongol and 1 Swede. We bore steadily eastwards, between barren hills and wide valleys, sometimes skirting a dark-green pool of water, the edge of which shone white with precipitated salt. No trees or bushes, no houses or fields, no human beings to be seen, no trace even of nomads or hunters. Vegetation was rare, and always poor and stunted. A desert land, which is ruled and owned by yak and antelope, wild horse and wolf, marmot and bear; a land where cold and storm are the bitterest enemies of man and animal; where the fight against them is waged for life or death, and where the forces of nature are always the stronger.

Vast open spaces that have never before been viewed by human eyes lure one on with all the charm of the unexplored, but they claim heavy tribute from anyone who sets out to lead a caravan safe and sound through those silent, inhospitable, awful hills, where death is always on the watch.

Just occasionally the eye of the traveller will be rejoiced by some beautiful sight. This is not merely pleasant, it is *beneficial*. The happy hours are few enough, the sad ones all too many.

Sap-bulak-köl was one of our big stations. The name was connected with the many springs there were round the lake, which had no visible outflow, though as the water was fresh, it probably had one underground—presumably towards the north. We had christened it ourselves, and I tried to

choose a name that the servants would find easy to remember, and that had some connexion with the topography or other characteristics of the spot. Just as we stepped on to a small terrace covered with yellow, dry, prickly grass, Tomes caught sight of three baby hares. Their mother had been frightened away, and had left the little ones defenceless on the ground.

We were to stay there some time, it was one of our pendulum stations. The little ones spent the first night out, as we hoped their mother would come back and take charge of them. But she never came, so they had to come into the tent with Tomes and me, and we fed them on goat's milk and other good things. When we left the place, Tomes, the friend of animals, built them a little hut, and gathered them a store of roots and grass in the hope that they would be able to look after themselves now.

Another rather delightful incident happened there. Birds are extremely rare on these high plateaux, but there we found one, a little sparrow-like, twittering creature. Having no trees to build in, he had made his nest among the hummocks on the ground, weaving small pieces of straw skilfully together to make an almost circular, practical and well-built nest.

South of Sap-bulak-köl lay a wide plain, bounded in the far distance by the topmost peaks of the Kara-koram chain. It was a promised land for wild animals, and there I saw the most beautiful sight my eye has ever encountered.

Early one morning I was walking alone, far ahead of the caravan, making my map, when I stopped on a little sandhill to measure some of the white peaks on the other side of the plain. Between them and me lay a lake, towards which three wild geese had just been winging. Nature was quiet and melodious, the sun shone from a clear sky, the shadows were still long. Suddenly a *kulan*, or wild horse, appeared close beside me as though he had been conjured up by magic. He was light brown, almost yellow, and lighter underneath; he had thin legs but large hooves, a thick mane and a funny,

thin tail like a mule's; he was strong and muscular, and had a lovely glossy coat. With the body of a pony he had the head of an Ardennes horse, but longer and narrower. His huge, inquisitive eyes were staring at me.

We began to talk to each other. "You're a handsome fellow," I said. "You are ugly," he said. "Where did you get those funny hooves? And your coat is in a shocking state. Why do you stand on your hind legs like that, and what a funny mane you have. Have you lost your tail?" After opening our hearts to each other like this for a little while, I asked him if he would stand quite still for a moment, so that I could take his photograph. "Yes," he nodded, "but make haste, for I am not quite sure about you. There are things called human beings, that I have heard rumours about, and they are dangerous and unreliable. I don't mean to insult you, but the description fits you quite well, although, of course, I thought they always had those long firearms with them."

I drew my little Leica-camera slowly and cautiously out of my pocket; I did not altogether trust his promise, though I thought we understood one another quite well. Slowly, slowly up to my eye—click!

I ought to have known what would happen. He ran away, and I saw what a fool I had been. Why couldn't I have stood still a moment longer and enjoyed the sight of my beautiful companion instead of frightening him away like that? And it was with shame that I took out my notebook and wrote: "Wild horse, *kulan*, distance about fifty feet, stop F9, yellow filter 1", &c. It was a great disappointment to me that that photograph did not come out.

But the *kulan* was not fooling me. He had not been frightened—on the contrary, he was extremely interested. He had run back behind the hill, where a little valley lay, full of green grass; a patch of soft meadowland, sprinkled with almost microscopic blue gentians and lilac-scented orchids. Green grass may not sound very much to our ears,

but a patch like that is a singular rarity in this high, barren land. It was not by any means the usual dry, prickly grass, but a velvety, thick, lush carpet, an oasis, a pearl, or perhaps *the* pearl of this whole kingdom, a kingdom ruled not by men but by animals whose peace had never been violated.

This paradise had drawn not merely one *kulan*, but many. The one who had been up to look at me was the leader. He ran back to his herd and told them: "Here is a strange, two-legged animal, the like of which I have never seen. Not very tidy, but very interesting. Come and look at him. But make haste, for he may have taken fright on seeing me and run away."

They came galloping by in a long line, eleven of them in a wide half-circle, prouder than the purest thoroughbreds, lifting their feet high in the Spanish step, throwing up their superb heads in a quick backward, upward movement. Suddenly the whole line stood still. That was the leader, at the end of the phalanx. There was no doubt about it. The little white star was his special mark. I was an astronomer, and he had a star, "*nescit occasum*", on his chest. That must have been why we understood each other so well.

We stood silent for a long time in mutual astonishment. Nature herself sometimes holds divine service—she does often, though we do not always stop to listen to the sermon, which is the most beautiful and the deepest imaginable. But this time one could not help but see, rejoice and be moved.

The leader, farthest to the right, pricked up his ears and listened. Perhaps he heard the jingling of the bells from the caravan, and thought it best to part while we were still friends. He nodded, and with a quick toss of the head led his herd winding away towards the south, so that I saw the whole line silhouetted against the magnificent background of the dark-green lake with its white salt shores, the shimmering yellow slope on the other side, and on the horizon the blue hills reflecting the sun's rays brightly from their ice-capped peaks, the lines of which were moulded soft with snow.

Then they turned east by north and vanished up the valley behind the hill.

The caravan appeared far away to the west in a cloud of dust, and I too began to hear the bells.

But there was something still to come—the ceremony was not over, its very climax remained. The leader was a good stage manager; he had learnt from Our Lord himself. He knew that the most beautiful background for the proud beasts of the mountain steppes is the intense clear blue, merging into black, of the sky.

He led his herd up through the sunshine on to the ridge of the hill which lay to the north behind the sandhill, and they galloped past, in sharp silhouette, with heads thrown high, wild flying manes, and tails straight out, away to the distant open spaces, where pasturage is scant but peaceful—the goal of their happy dreams.



“The goal of our ambitions”—photograph taken from a height of 18,800 feet



“Quo vadis?”

CHAPTER XXIV

A Change of Course—Difficult Days

EVERY traveller who sets out for northern Tibet prepares his expedition with laborious care. He collates the experiences of earlier travellers, chooses the best time of year, prays that his animals may endure the strain, hopes and trusts in his lucky star; he *will* succeed.

But he *cannot*. His enterprise is doomed to tragedy. If he is fundamentally honest, he will hear a voice within him saying: "It can't be done, but do your best. When the time comes that you have lost so many of your animals that you cannot continue according to your plans, mind you see to it that at least you are able to bring the remainder of your caravan back in safety to inhabited regions. See to it that no human life lies heavy on your conscience. Remember the merciless wind, the biting cold, the poor, scant pasturage, the lack of water and fuel. Remember the frightful thinness of the air, remember that everything is conspiring to suck the life out of your animals. Know that your path is marked with skeletons, that the camping-grounds are churchyards, that nature is pitilessly hard."

I said in a previous chapter that it is not merely pleasant but positively beneficial to come across something beautiful. It is *necessary*, to counteract all the horrible things that weigh you down and bring you nearly to despair.

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In the evening, when all the work was done, Abdu Rehim, the caravan bashi, used to come in to me for a cup of Lipton's

tea with sugar, a great delicacy, which he would drink with obvious relish while I entered his report in my diary. It was becoming more and more monotonous and gruesome. On the 1st October, 1932, only sixty animals remained of the original ninety-seven, and we were entering on a particularly difficult phase of our journey. The animal register for the week from the 1st to the 7th October contains the following grim entry under the column headed "Died during the day": "2 donkeys, 3 donkeys, 1 donkey, 2 donkeys, 6 donkeys, 1 donkey, 1 donkey." Seven days had thus reduced our animal reserve to forty-four, and we lost another four on the eleventh.

We were in the middle of a white patch on the map. Our programme hitherto had been: forward at any price, on towards the east, explore the largest possible area. Try to carry out a connected triangulation covering the whole of the district we pass through. *Now* this was totally changed; our first object must be, if we were to avoid imminent disaster, to make our way to some place where the animals could rest and recover their strength. Should we head north or south? All our instincts drew us towards the south, towards Lhasa, the mysterious, unknown. For two days we worked in that direction; but then I thought again.

Tibet and its inhabitants are inhospitable, cruel. There was only one in all our caravan who could speak Tibetan. We had almost no money. Would it not be better to go northwards, towards Chinese Turkestan again? There we should meet people whose language we could all speak, people hospitable by nature and with whom we were already on good terms. We should have better prospects of reorganizing our caravan there where everything was cheap, and that road too led over unknown country.

We set our course due north, with Chinese Turkestan our goal again. The road became bad and the marches infinitely more difficult.

The mountain chains run from east to west. Previously

we had gone the long way of the valleys, now we were going across the hills, up and down all the time. The farther north we went, the more austere grew the country. My diary for the 26th October runs:

“Last night was bad, minimum -9° F. At midnight the wind got up from the south-west. This morning 4 donkeys lay frozen to death close beside the tent. Two more are as weak as they can be, 8 bad, 15 tolerable. We were late setting off. At the end of the first 3 miles the catastrophe came. The 2 died, 8 refused to go on. There was nothing for it but to drain the bitter cup. We dumped the whole pendulum apparatus, the meteorological station, the photographic apparatus, and even 2 cases of documents. All personal belongings, both my own and the servants. Everyone must carry what he needs himself. I have kept a change of underclothes and three pairs of stockings. Thus lightened, we marched on towards a pass, north 35° east. The caravan moved slowly under an atmosphere of oppression which grew no better when we finally had to encamp. Not a trace of green stuff, no *tissek*, no water. Consequently no fire, and this with a minimum temperature of -4° F. Sometimes it seems almost too much of a good thing. Yet we had one piece of good fortune. Tomes had cooked a big pan of rice in the morning with yak fat. It only had to be warmed a little and I had a few sticks with me which served for that purpose, though I had intended to fix them into the *obos* with particulars of who built them, &c., for the benefit of Norin and Liou. We had two thermos flasks full of tea. We spun it out with *talkan*, and strangely enough no one complained.

“There behind us lies the result of four years' work—shall I ever get it back? A catastrophe like to-day's is a bad strain on the nerves. May we be spared any more of the same sort. All my hopes of setting up a pendulum station on the edge of the high plateau have been shattered. The programme is no longer, 'Carry out the triangulation at any

price', but 'Save the remnants of the caravan, and organize a rescue party as quickly as possible from inhabited regions to pick up the things we dumped'.

"27/10. The night minimum —15° F. Two more of the animals died, our last remaining mule and the big white donkey. We have been trudging on for 17 days without rest. Of the provisions there remain 40 *cherek*¹ of maize, 15 *cherek* of maize flour, 15 *cherek* of rice, 14 *cherek* of flour, 5 *cherek* of talkan. This evening we have fuel and water. Tomes is hard at it baking bread in the ashes, roasting mutton, and making soup. We have as much tea as we want—and that is a great thing. One of the goats, Tomes' footwarmer, has died. The other still gives us every day a little drop of milk, which is poured into a big jar of brick-tea with salt. This is a Mongolian patent, and tastes excellent.

"The hills we have been travelling over consist mainly of grey and greyish-green types of rock, extraordinarily inter-mixed. The big valley we followed yesterday and part of to-day showed the most varied dips and bands on the faces of the rock, some of which were 60 feet high. From point 9191–9192 we had red rocks instead, preponderantly sandstone."

Our road led steadily northwards and became more and more difficult. Vegetation ceased altogether, fuel became extremely scarce, water grew rarer and rarer at the camping-places. The climax came when we had to cross the big pass over the main wall of the Kun-lun range itself. To go back to my diary:

"An early start for the pass. We went slowly, but the road leading up was good. Tavekkul and I arrived first. We went on up a peak to the west of the pass to make a triangulation, but before I could do it I had to thaw my fingers by setting fire to some pieces of paper I luckily had in my pocket. Then came the descent, which was the worst I have

¹ 1 *cherek* = 17 lb.

ever experienced. Tomes had gone on ahead with the horse. Suddenly the beast stumbled in the snow, which had ice underneath it. There was a crash, and down they went. The slope was 30°. Tomes found a foothold on a projecting rock and managed to hold the horse, which lay on its side just at the edge of a precipice. He whipped his knife out of his boot leg and cut the rope which held the packs; the tent and sleeping-kit went hurtling over the precipice and came to rest some 2000 feet below. Tomes got his hand round the horse's nose and drew it with him up the slope, and so they were saved. The 'road' is such that one is tempted to ask, *Quo vadis?*"

The days and nights which followed were terrible. Three days brought us forward a mile and a half through break-neck country. The packs had to be lowered down perpendicular precipices by rope. So had the animals, one donkey after another, their hooves tied together. Poor creatures! To crown our misfortunes we suffered from the lack of three incredibly necessary things: water, fodder and fuel.

On the *first day* we sacrificed the tent poles and thawed some ice, which thank God there was, to get water for the animals. The men had to make do with *talkan*. It was a blessing that we still had that. Mixed with finely crushed ice it satisfied both hunger and thirst. The animals had to have *water*, otherwise they could not eat their maize—there was no trace of any green stuff for them.

The *second day*. The same desperate situation. Abdu Rehim suggested that we should sacrifice the two wooden packing-cases. They held the radio, chronometers, and barograph—impossible. But the lids! We chopped them up, and the axe handle went after them into the fire. The donkeys were led to the tent door one by one and given each a measure of icy water. Tomes and Tavekkul sat by the fire to see that none of the unreliable Turkis took it for themselves.

The *third day*. The situation still the same—which means that it was many times worse. For the third day running we were without the three necessities of life. Everyone was very depressed, some of the Turkis had given up hope altogether. "It is the will of Allah that we should perish. His will be done. Praised and glorified be his holy name."

No, I thought, it is not Our Lord's will, and I was certain that we were near salvation. Far away to the north-west we could just see a valley covered with a sort of mist; it must contain water. If there was water, there would also be pasturage and fuel. If we could only get there, we were saved. *We must! But how?*

A thin stream of smoke rose from behind a pile of sacks. Kurban achon had kept back and hidden some pieces of the tent poles, and was making himself a private fire on his own account. I gave him a good beating, which perhaps warmed him just as well, and took charge of the sticks myself. With the help of these and my last remaining book, a volume of Sven Hedin's big scientific work, *Central Asia*, we thawed a few more drops of water. As the leaves blackened one by one in the flames, the print and the pictures still showed clear in the glowing ashes. It made not only water, it made boiling water, tea. We sacrificed two packets of sugar, and everyone had a cup of glorious hot tea and a handful of sugar, which is an excellent stimulant and a nourishing food. Life stirred in us again. The covers were laid over the donkeys, tied close together to keep them warm, and soon snores were heard on all sides.

Tomes and Tavekkul helped me with the determinations of latitude and time, the theodolite was packed up, and Tavekkul snuggled down beside the solitary goat. Tomes and I set the wireless station up, and at one o'clock at night, sitting in my sleeping-bag, I picked up the Rugby time signal and got the longitude fixed. Then I took out the valves and packed them in their cardboard boxes, unscrewed the aerial,

disconnected the accumulator, and put everything in its place. Five minutes later we were all asleep.

The *fourth day*. An early start. The country grew better and better. Bare rocks gave way to rounded hills. Tiny plants began to appear here and there. At half-past eleven we reached the spur of a hill, from the left of which a stream gurgled merrily down a channel in the ice. The slope on the other side gleamed yellow with dry grass. There was *bursa* and *tissek* in plenty, traces of *kulan* and yak, traces of human beings. We were saved. Camp!

It was the 6th November, 1932, the three-hundredth anniversary of the battle of Lützen.

All the servants lay in a row along the edge of the ice and sipped their fill of the elixir of life. The horse and the donkeys went mad with joy. Soon fires were crackling, pans bubbling, laughter ringing out, men singing, everyone's face radiant with renewed life. Tomes made jam of the remnants of the dried fruit, Abdu Rehim took the last of the fat and cooked a rich pilau, Emir achon stewed soup in the water bucket. Everyone patted themselves on the stomach. Chil danced round with a big bone in his mouth, the men sat round the fires holding out their open hands to the blaze and warming themselves. I myself went about taking photographs, and never have I failed so utterly as I did then. But I succeeded with one thing.

There were three poles set up at a little distance from the camp, and from the top of the tallest of them waved a yak's tail. I concentrated all my powers on convincing my better self that this could not possibly represent a religious symbol, but was simply a landmark intended to guide the shepherds to an excellent pasturage, and I solemnly promised that I would build an *obo* there which would show up much, much better. I succeeded admirably with myself, and returned to camp with the poles. The three of them were lashed firmly together into one, and a flag tied securely to the top.

Then I watched with tears in my eyes and with humble pride as the flagstaff went up and the wind unfurled the big Swedish flag.

It was a grand idea. At home thousands upon thousands of blue-and-yellow banners were waving that day in honourable rivalry as to which could come nearest heaven. None, none, flew so unthinkably high, so indescribably free, as mine!

.
“If only that wretch Mahmed Emin had not destroyed all the poetry of it. To think that he could sink to anything so mean as to steal my butter, even if it was rancid and green and only half a pound. I thrashed him so that my arm is still aching. And then I went in and cried quietly.”

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That evening Chil lay on the flap of the tent with hoar frost on his coat and dozed, while I stood drinking in a last look at the camp.

My lucky star was shining.

CHAPTER XXV

Dalai-kurghan—Charchan

“**T**O-DAY it is a hundred days since we last saw a human being, and I have promised the boys that we shall reach Dalai-kurghan to-morrow and meet people who speak their tongue.”

That march proved more difficult than I had expected. First of all we had to get over a high pass. The road up was not too bad, but the road down was difficult, a narrow winding passage with nasty drops at two places, only about three feet high, it is true, but completely covered with ice. The loads had to be taken off, lifted down, and packed on again. The thirteen donkeys had to be lowered down on ropes, and one, which had broken two hooves up on the big pass, died.

At three o'clock in the afternoon, I hurried on ahead with Tavekkul. The suspense was unbearable. Should we reach human habitations that day? We needed to badly enough, but it looked pretty hopeless. The sun was already setting, and Tavekkul probably thought this talk about finding people again was simply a trick of mine to rouse the men to a last effort. At about six we turned a sharp corner, and the valley suddenly became well watered. From the other side of it, just to our left, rose a thin stream of smoke.

At last! A cave had been scooped out on the wide terrace, and inside was a fireplace on which the *tissek* lay still smouldering, but alas—no people. We called and shouted—no answer. A shepherd had evidently been there at some time during the day to warm himself at the fire. The hillmen make their fires of sheep manure, as they do in Karanghu-

tagh, and it goes on smouldering for a long time, if it is not blown or stirred. I felt quite sad and disappointed, and thought Our Lord might have let my prophecy come true. But one should never find fault with Providence. It knew what it was about when it arranged for that shepherd to have gone away. That place was *not* Dalai-kurghan.

Beside us ran a rippling brook, and we followed a well-trodden path, constantly crossing the little brook, which wound from one side of the terrace to the other. There were stepping-stones all the way, and we went completely dry-shod. The rock faces at our side grew more and more sheer, the vegetation was monotonous but thick. Four horses were browsing on a slope to the north-west.

At half-past seven we smelt smoke again, and increased our pace excitedly, until we saw an old woman standing baking maize bread. Tavekkul would have pushed in front, but I grasped him by the arm and whispered: "*Mān avvāl*" —Me first. We advanced together towards the old woman, our hands on our hearts. "Salaam, aleikum." She answered: "Aleikum salaam!" And our first question was: "What do you call this place?" "*Dalai-kurghan*," she replied, as though it were a self-obvious fact and with ill-concealed surprise at our ignorance. Tavekkul was a head taller than I, but believe me, he looked up to me all the same at that.

That evening my prestige went up—I could almost watch the mental process in Tavekkul, and his respect was even greater for the little object I always held in my hand—*Jolneng saati*, the road-clock, as the Turkis called my compass. That and the friendly stars had guided us well.

I was proud as a cock, happy as a lark, and grateful as a child.

I had opened my purse that morning and taken out a silver dollar and put it in my pocket, and on our day's march Tavekkul and I agreed that the first child we met should have it. But it had grown so late by now that all the children were

in bed, so I gave the coin to the old woman instead, with strict injunctions that she was to pass it on to her youngsters. She brightened up at this hard proof that we were gentlemen, and offered us maize bread in a much friendlier mood. Then she told us that all the inhabitants of the village were away—there were only three families in any case—but a mile or so farther east we should find real houses and plenty of people at Konche-bulak. “There is even an Ak-sakal there.”

We went. It was pitch dark by the time we got our night quarters with Tord achon and his wife. They cleared out the shed, swept the floor, laid down rush mats and *kigiz*, and sent a messenger at once to the Ak-sakal, who lived six miles away. He arrived about ten o'clock, bringing with him a newly slaughtered sheep, two donkeys loaded with fuel—which was scarce in this district—freshly baked bread, and best of all—a melon!

Tord achon had collected eggs, milk, and cream. As there was no frying-pan, I made an omelette in an iron soup tureen. Tavekkul had gone back with a donkey and a few men to show our people the road, so I sat there alone stuffing myself, while a group of Turkis sat round me marvelling at this strange new animal with the terrific appetite. “Where does sahib come from?”—“From the hills”—sweeping gesture. A little boy sitting in a corner pulled at his father’s coat-sleeve and asked: “*Adām ma?*”—A man, is it? Yes, it was a man, though rather a funny one. There had been others like him there about thirty years before: Sven Hedin and Sir Aurel Stein.

At half-past ten Tavekkul and Emir achon arrived with two packing-cases and my bed. Tomes had been as thoughtful as ever. The two packing-cases contained my chronometers. The main caravan had stopped at Dalai-kurghan. The little place where we had seen the fire was called Sāpe Chap. How lucky for me that there had been no one there, or my prophecy would have been belied.

I sent a rescue caravan from Konche-bulak to fetch all the things we had dumped on the way, and gave Abdu Rehim and Emir achon exact instructions how to go, taking a somewhat more easterly route. They did their job perfectly. Not one thing did I lose, but I had an anxious time until they got back. I spent the interim doing writing work and making a triangulation in the village.

When all the various instruments arrived, I set up a pendulum station and then moved on to the little town of Charchan on the river Charchan-darya. I was to stay there for some time. I paid my visit to the burgomaster, Shu Darin, on the very first day, and was informed that he had received orders from Urumsti that I was not to leave the town until the central authorities had been notified. The Governor-General had foreseen that I might crop up on the southern boundary of the Taklamakan desert, and had sent orders in good time to the governors of all the towns. In addition, Shu Darin requested me not to take any photographs. This was aggravating to the last degree. If he had forbidden me straight out, I could have taken no notice, but when he *asked* me, I had to obey in order not to "lose face".

CHAPTER XXVI

Private Lessons in Chinese

FOR some days I strained all my diplomatic powers in an effort to get round the Governor-General's orders. It was no use. Then I wrote a long letter of appeal, indicating the route by which I hoped to proceed eastwards, and requesting that the Governor-General would allow my correspondence to be forwarded to me. It would be two months before I could get any answer, so while I waited, I set up a pendulum station, developed plates and films, and tried to improve my Chinese.

Shu Darin had two secretaries, Dju Kodjang and Tsa Kodjang, and a clerk, Huang Ssueh. His Head of Police was called Tăn daloje. All were singularly charming people, but very fond of company. When Shu returned my visit, I took the opportunity of showing him some photographs. They evidently appealed to him, for a few days later he came over and asked if I would take a photograph of him too. I wanted nothing better. After that I was able to take as many photographs as I liked, almost, and things became quite pleasant.

Tsa and Huang were my special teachers and friends. One day they were sitting at home with me drinking tea when they caught sight of an old Swedish newspaper, in which was an advertisement of corsets, with an alluring illustration. This gave the conversation a definite turn. Tsa inquired with polite interest how many wives and children I had. I replied, blushing modestly, that I was a bachelor. To this

they remarked: "*Kuai te jên*"—extraordinary man. After a moment's consideration Tsa found the solution to the problem: "Ah, I understand, your parents have of course arranged that there is a girl waiting for you when you get home."—I could almost picture it, but I had to deny it all the same.—"*Kuai te jên*"—He continued the interview by asking what I thought of the Turki girls? I replied that as I was afraid of them and they were of me, there was no question of thinking anything at all. Here Tones intervened and explained at some length that his master did not have anything to do with loose girls, and that according to foreign conventions it was impolite and improper to go into details on such matters—" *Kuai te jên, kuai te jên.*"

Christmas, 1932, I spent quietly and silently, with not even a single letter. Tones "shot in" the New Year, 1933, according to the Mongolian custom. First a shot for himself, then one for me, his master, and finally one for the other servants. If the shots ring out clean, it foretells good luck. All three echoed sullenly between the walls, perhaps as a warning that there would be much shooting in the coming year.

Huang Ssueh was always busy preparing indian ink when one came upon him at home on the days before the holiday, and Tsa Kodjang often stood smoking his hookah with a whimsically thoughtful expression while his friends played mah-jongg.

On New Year's Eve they both came over, and brought with them a large roll of paper.

The house was adorned with their beautiful *tui-tzu*, long red strips of paper, on which Tsa's beautiful thoughts were inscribed in black characters by Huang's bold, strong brush. The one over the door said, "May Spring bring Happiness and Health to Mankind". In my room were two large, four-sided lamps. The sides, of transparent Khotan paper, were adorned with red borders, and on the plain white portions

were inscribed quotations from the Ancients in graceful characters.

The highly educated Chinese can give very perfect expression to sublime thoughts with very few characters. On each side of the lamps was a complete short essay.

"A wise man withdrew into the mountains and lived as a hermit in a small cave, far from the turmoil of the world. He became more and more learned.

"One day the prince heard tell of the pious recluse. He sought for nine days before finding the hermit's dwelling. Seven days he stayed with him acquiring knowledge.

"He was then able to help his people a thousand years on in time."

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"Even the dry desert hills have their beauty. Sometimes soft rains fall there. The water gathers in the valleys to form streams so dazzlingly clear that you can see the little stones shifting on the bottom. Then you remember the moon, which silvers the fir-tree needles and the poplar leaves.

"The stones too have their charm."

.
On New Year's Eve a long and stately caravan came winding from the west, but it brought no mail. One of the camels had had a foal. The soft little creature with its lustrous, blue-grey coat rode on its father's strong, brown back, while the mother, still weak and freed from carrying loads, followed behind watching attentively.

Tomes and I sat inside the serai, and wondered silently what the New Year would bring.

The side of the lamp that was turned towards me had only a few characters, but they had evidently been drawn with very particular care.

"Give people good thoughts, that it may go well with them."

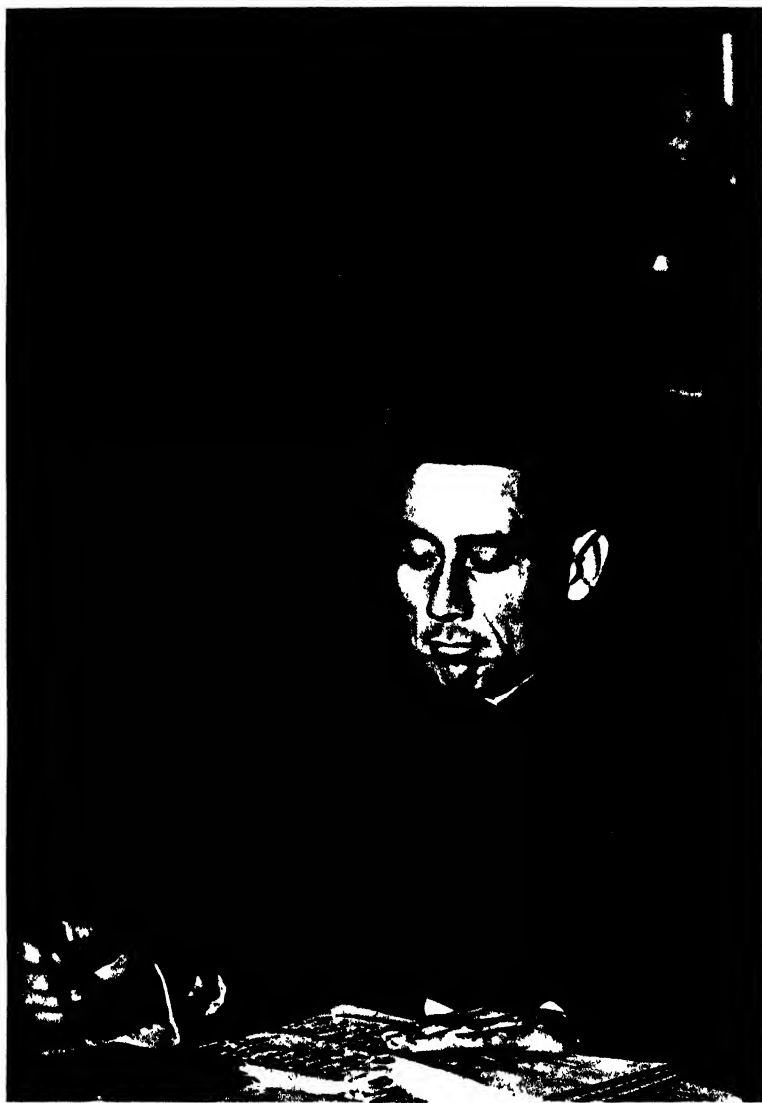
CHAPTER XXVII

Revolution

THERE was still no answer from the Governor-General in Urumtsi. I had been ill for the last few days with bronchial catarrh. Everything was still and peaceful, strangely silent. On the 9th February, 1933, a brother of my Chinese cook Yuan came to Charchan, and I could hear endless talk going on in the kitchen. Later that evening Tomes came in and told me that revolution had broken out in the land. Yuan's brother had fled from Charkhlik, where the disturbances had already started. The Tungans had raised the standard of revolt, and the Turkis had made common cause with them.

I realized all of a sudden why I had never received any letters, any answer to my communications, any money. By degrees the rumours took more definite shape. The new strong man was Ma-tsung-in, and his troops were expected in Charchan on the 19th February.

I had been waiting for some time for an opportunity to make a triangulation that would enable me to include the high hills to the south on my map. On the 19th, the Chief's birthday, the weather cleared up. The whole town was in a state of confusion, and no one had time to notice me: everyone had his own troubles. I got out my theodolite in less than no time, rode with a few servants straight to the eastern base-point that I had chosen and marked out long before, and measured a succession of lofty peaks. We packed up and hurried off to the western base, but by the time we arrived, the view had already gone. 'It was tragic. This was the first time for three months that we had had a clear view; were



Huang Ssueh with his box of Indian ink



Ma Fu Guan and his fifteen-year-old son

we likely to get one again within a reasonable time? Hardly, it seemed, and I went home tired and depressed.

To add to our troubles, the donkeys, which we had tethered to a tamarisk-bound sand-cone, had broken loose and run home, so that we had to wade through the ice-cold river. Between the river and the town ran a strip of pasture-land thinly covered with reeds and camel-thorn, with a few tamarisk cones, and trailing clematis twining round the toghrak trunks. At this time of year it was all cold and dry; but we saw lanterns shining in many places.

Whenever there is disorder in the land, the people always go and bury their most precious possessions. Many of the wealthier townspeople were busy in this way that night out in the dry *djāngal*, as that strip of land is called—the word is closely related to “jungle”. This custom has prevailed in Chinese Turkestan from time immemorial, and is one of the reasons—there are other more important ones—why archaeologists frequently find such beautiful ornaments in their excavations. The owner of the buried treasure, of course, often enough finds himself before long short of his head—even though executions do not generally begin with such a vital part of the body.

In the ruined towns of Taklamakan one often comes upon most remarkable and interesting relics of earlier cultural epochs, for widely famous caravan routes used to run through Chinese Turkestan and serve as trade links between the East and the West. Sometimes a river will cut through a former town, and then even the layman can recognize objects from the most varied parts of the world in the exposed strata. An agate seal adorned with two Greek cupids, another of a glassy substance with the head of a late Roman legionary, a third of bronze with a formalized Chinese monster—all witnessing to the brisk commerce that the land enjoyed in former days.

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We had a clear day again on the 22nd, and I completed

my triangulation. It was an extraordinary piece of luck that the clear weather came just during the days of the revolution, for previously the Chinese would not have allowed the work; what would happen later, no one knew. We will turn back to my diary:

"23-2-1933. Two Chinese who keep a pawnbroker's shop have gone over to Mohammedanism and greet their acquaintances with 'Aleikum salaam'. Every Chinese with a glimmer of self-respect has always felt an indescribable scorn for *chan too*,¹ and shown it quite openly. All this has changed in the last few days. The Turkis have begun to be regarded with a certain respect.

"24-2. Two Turkis arrived from Charkhlik and put up at Jussup beg's caravanserai. They were simply dressed, but carried weapons underneath their clothes and were treated with obvious respect. People stay in their homes—there is hardly anyone about in the streets. Is it the calm before the storm?

"25-2. The two Turkis sent a message to the burgomaster to come to their serai. Shu Darin obeyed the order, which meant that he had given up the game.

"Two days' march outside the town, said the Turkis, were 500 soldiers, and the question was whether Shu Darin chose to fight them, or surrender of his own free will? He surrendered. He had 35 soldiers at his disposal, but what were they like? There was not one that he could trust. Without a shadow of doubt they would all have gone over to the enemy at the first opportunity. It stood to reason—they were Turkis to a man. 'Then hand over all your arms and ammunition.' The audience was over. That afternoon box after box was carried over to the new masters. Hundreds of Chinese were converted to Mohammedanism. The burgomaster was baptized under the name of Jakup Bedowlet, the Happy One,

¹ Chinese for "turbaned head". The reference is to the white turban, *sella*, which the Turkis wear—the literate always, the others only on special occasions.

and his little daughter Altun Chan, Golden Girl—both of them very handsome names.

“ 26—2. Large crowds gathered at the mosque to enjoy the spectacle of their former ruler putting on the *sellā*, or white turban, and the *meize*, the Turkish boot with a detachable, high-heeled galosh, and for the first time, in view of everyone, performing his *namaz* and bowing his forehead in the dust.”

Several days passed in this way. Rumours ran through the town like lightning; it was indeed a kind of thunderstorm that was passing over the country. There was no possibility of getting accurate information. I sent messengers to Khotan and Yarkand, but had little hope that they would return again. On the 5th March the troops arrived, which on the 25th February had lain “two days’ march” away. The good Shu must have felt bitter when he saw that “army”. It consisted of one captain and six soldiers! One of these was the fifteen-year-old son of the captain.

Ma Fu Guan, the officer, a short, thick-set, abrupt type, certainly a good soldier, probably also a good officer, arrived in the morning and came over to see me the same afternoon. The whole population of the town believed that “sahib’s” last hour had come. Ma would obviously make short work of the unbelieving dog, and the whole male and a large part of the female population of the district gathered at the caravan-serai where I lived, to witness the execution. My servants sat in the kitchen with faces like chalk. Only Tomes kept a cool head and accompanied me out to meet my mighty guest.

It was a very exciting moment; but Ma turned out to be quite pleasant, and by no means so dangerous as people thought. He spoke in Russian, so the conversation was conducted in that language, which only Tomes and the two of us understood. He began by asking to see my passport, which I showed him, and then I pointed out Sweden to him on the map, and told him it was one of the finest countries in the world. Has sahib any firearms?—Three.—May I see?

—Certainly. We produced our whole arsenal: a carbine from 1887, a double-barrelled "Army and Navy", and a big Browning.

Yes, I shall have to take these.—Certainly, provided you are willing to pay for them.—Of course, and we will only take two, so as not to leave you altogether without.—And then we drank a cup of tea and talked about the weather, which was a non-committal subject, and parted.

I returned his visit in the evening, and we discussed the price. The figures I asked were pretty high. I was absolutely broke, though nobody knew that. He sat up; this was very expensive. I explained that they were first-class weapons, particularly well-adjusted, and that this was a unique opportunity.

Not only did I put a heavy price on the arms, but on the ammunition too. There were fifty cartridges for the carbine, and 120 for the revolver. The double-barrelled gun I intended to keep, it was the best. After some discussion we agreed that he should pay the sums I asked for the arms, but that the ammunition should be thrown in. He was delighted. I myself almost wept with despair, but secretly I was overjoyed. Now I had money and could set off at any moment, provided the new authorities allowed.

The whole countryside was in flames. The revolution had broken out in several places almost simultaneously. Rumour told of the most frightful atrocities, and the descriptions of the fighting from the Turfan district were bloody and cruel to the last degree. In Charchan everything was quiet and orderly, but the smiths were at work day and night making swords and lances.

On the 13th March Ma lost control of the people, and looting began, though mercifully it was not general but confined to a few hated Chinese, and one of the most powerful of the Turkis. The excuse given was that he was thought to be "on the side of the Chinese", but actually it was sheer

rapacity. The rioters got little for their trouble, for Niaz Beg, being a sensible man, had put all his loose property in safety. They paid no attention to me, for which I was very thankful. This was the first time I had ever seen a revolutionary mob, wild with lust, without a trace of responsibility, fanatical, excited, and terrifying, and it was not a pretty sight. Everyone was armed. Those who had no proper weapons had at least a stick or a *kaltak*, a wooden club.

"23-3. A few more important gentlemen arrived from Charkhlik, also Tungsans. Rumour is still active. One day there is a new Governor-General in Urumtsi, the next the town is invested by 7000 soldiers. On the third, it has been captured by a Turki from Hami. On the fourth, a Tungan is on his way there with 70,000 men! The other day when I ventured out to make a triangulation, I saw in my theodolite that one of my triangulation marks had fallen over, and as I could not remember the word for 'fall', I said to Tavekkul, 'The *obo* over there has died.' A rumour immediately spread round the town that sahib had seen in his Thousand Eyes that hundreds of people had died in Urumtsi."

Tsa Mo Djang, the last-arrived war-lord, gave me permission to set out on my journey westwards. Intense interest immediately began to be shown in all my possessions.

Captain Ma came to pay me a visit. "Can I have that pair of field-glasses? You don't need that knife! What an excellent pair of boots, they would just fit me. And what a lot of watches you have!" It was enough to make one explode, but one had to be polite. To crown all, he complained that my firearms were bad. I was very surprised, and asked what was the matter with them. Oh, the cartridges didn't fit. He had been putting them into the magazine wrong.

My three servants fell ill with a fever. There was a severe storm lasting several days. It was rather a strain to cook, do the housework, and nurse three patients, and at the same time pack up for departure. On the 1st April I eventually got my

passport, and the whole Chinese colony came to take leave of me. They felt that my sympathies were on their side. Every one of them brought me a little present, an attention which I greatly appreciated. On the 2nd April I engaged a donkey-driver and paid him in advance, on the 3rd he ran away. However, my own boys were well again by now, and we soon got hold of another, whom we almost tethered up at the caravanserai. On the 4th we set off. The only way which the authorities left open to me was the main road west towards Khotan.

CHAPTER XXVIII

Along the Southern Edge of Taklamakan

THE cuckoo flies high over the fields, crying in Chinese: "Plough and sow! Plough and sow!" And everywhere the people can be seen obeying. Thin but sinewy oxen go drawing a simple wooden plough with a ploughshare of shining steel, while a little girl follows in the furrow sowing the grains of wheat one by one. Spring is coming.

The march to Niya was monotonous, and we came in for the usual sandstorms and hated them. Sometimes we had good water, sometimes it was salt. Generally the pasturage was miserable but fuel fair. We met a few camel caravans, but there was not much traffic.

The men used to sit round the camp fire in the evenings warming themselves and telling stories, which the cheerful youth Tavekkul enjoyed as much as anyone. His eyes always shone with pleasure, and he is responsible for the following little saga about the camel and the horns.

In olden days the camel had the finest horns of any animal: heavy, manly ornaments. But the wild sheep had none at all, to his great sorrow. One day a wild ram came to the camel and told him that he was to be married the next day, and was sad because he had no horns, and asked with elaborate turns of phrase and many flattering speeches whether he might borrow the camel's majestic, twirling adornments. The good-natured, kind-hearted camel looked at the ram, and felt sorry for him having to cut such a poor figure on his wedding-day. So he knelt down and allowed the ram to lift off his crown and set it on his own head. "I will send it back

to-morrow by one of the wedding-suite," the ram cried as he raced back to his mountain slopes. But in the excitement of the wedding festivities he completely forgot his promise, and when he told his wife next day that he must send back his fine horns to the camel, she thought it quite unnecessary, for they looked so much better on her husband. As so often happens, the wicked female element triumphed over the good masculine one; but in consequence the sheep has always had to stay up in the high and inaccessible mountains and has never been able to visit the rich plains.

The camel waited down among the reeds by the river, and cast long, searching looks after every traveller who passed, but always in vain. No one brought him his horns.

To this day the camel still turns his head round every time he meets a traveller, and lets his eyes linger on him, seeking his lost, proud treasure, before withdrawing his gaze with slow melancholy, and with long, deep nods relapsing into contemplation of the cruel falseness of the world.

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We got safely across the Endere-tarim, the river that has no eddies, picking up on the way a strange creature who never said a word and thus had the makings of an excellent servant. His name was Heli achon and he attached himself firmly to Tavekkul, the two of them accompanying me, like Tomes, as far as Kashmir.

Wereached Niya on the 13th April. The bazaar was thronged with brightly dressed soldiers. Formerly, the distinguishing mark of the Turki had always been the white turban, but the spirit of the new time required livelier colours. The younger manly element of the town was like so many strutting peacocks, far outshining the modestly turned-out soldiers of the period of the Chinese régime. A troop of 100 men arrived from Keriya at the same time as we, under the command of Niaz achon with the pretentious title "Emir".

He sent at once for Tomes and me, and we were escorted

by twelve soldiers with shining swords and long, broad lances, and a drummer-boy, the detachment being commanded by a strong, active and very pleasant man, Hashim Hadji Hakim. We were taken direct into a large, airy room covered with rugs in screaming colours. The effeminate little emir sat on a dais in one corner, dressed in a bright red "uniform" of flowery silk, twanging tunefully at a guitar, humming and enjoying himself, and did not honour us with a glance. He was obviously of the type that liked his opium pipe and some pretty girls from the street to amuse himself with. Finding that no great attention was paid to us, Tomes and I began to exchange remarks about his appearance; he did not understand Russian. Suddenly he woke up to the situation and asked us how we were. "Very well, thank you."—"Where are you going, gentlemen?"—"To Keriya."—"Good. Are there any pretty girls on the way to Charchan?"—"No."—"Good-bye."—"Good-bye."

At that we returned to our serai, where we found a lively altercation in progress in the raciest Turki between Tavekkul and a soldier who had tried to steal his *chilem*, or hookah. Early next morning we were on the road again.

We reached Keriya on the 17th, and were met by the British Ak-sakal, the attentive Gholam Muhammet Khan, who regretted that the authorities had forbidden him to place his house at my disposal, so that I had to put up at an ordinary serai with its characteristic atmosphere of squalor and misery. A troop of soldiers marched into the courtyard, and one of them came and tried to take my gun, the double-barrelled rifle. I told him that that was a matter between his general and myself, but he snatched it from me. Even a Swede can get in a fury sometimes, and the next moment I had it back, but not for long, he was too strong for me. Boiling with rage, I took my Swedish passport, marched straight up to the yamen, and demanded an immediate interview with Kamal Da Mollah, the ruling Pasha. (No false modesty here about titles.) The

pasha received me, for Gholam Muhammet had heard of the trouble and come riding in my tracks. I said excitedly: "I am a Swede, here is my passport. Kindly look at it. I come from Charchan. The journey here was peaceful and pleasant. When I got here, a lout of a soldier stole my rifle. There he is. I appeal to Your Excellency to put the matter right." His Excellency apologized, and we parted on good terms.

I had intended to make a gravity determination in Keriya, and next day I began to set up my instruments in all secrecy in my "bedroom". In addition the meteorological apparatus had to be set up in the courtyard outside. While I was busy with that, two soldiers came and ordered me to remove it immediately. "Why?"—"Orders."—"All right, then we will go up to the pasha again and see what he says."

He was sitting in the Council of the Elders, surrounded by a group of venerable grey-beards, and I thought the matter would soon be settled. But by no means. I delivered a long lecture on popular meteorology, laying special stress on its service to agriculture, the importance of being able to predict storms, and the necessity of obtaining protection against devastating floods. I felt I was being quite eloquent, and concluded with a description of the magnificent meteorological stations in Istanbul, painted in the brightest colours of the imagination. Wasted effort. The elders withdrew for a short consultation, and the pasha himself formulated their decision in the following terms: "When it is cold, we wear a thick fur coat. When it is warm, we go in our shirt-sleeves; but we, the men of the new Islam, have no need of 'meteorology'!" So I had to go back and take down my meteorological station.

The serai backed on to a large plot of waste ground with high walls. I made a hole in the wall, and continued my meteorological observations in there, without reference to the views of the new Islam.

What would they have said if they had known that I had

a wireless set in my room, in addition to all the other wonderful things?

Gholam Muhammet described the course the revolution had taken in Keriya.

First the Chinese were instructed to surrender all their arms, money, gold and silver, seals, &c.—They did.

Next day all the unfaithful were converted to Mohammedanism, and received a pledge that thereafter they should go in peace.

There followed great festivities at the State expense. The new Islam was proclaimed.

On the fourth day of the revolution thirty-five Chinese and two Hindus were murdered. The methods were mediæval in their cruelty. Their ears were cut off, their tongues torn out, their eyes pierced in, their teeth knocked out, their hands and feet crushed—and little by little the delinquent died. The corpse was thrown to the dogs.

Chinese women were taken from their husbands and given in marriage to Turkis. Little girls ten years old were given to men of over fifty.

This was in 1933. The new Islam.

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We chose a lucky moment to leave Charchan. If we had reached Keriya one week earlier, both Tomes and I would certainly have lost our lives. If we had stayed one week longer in Charchan, we should have experienced the same thing there that happened in Keriya. Just when the frenzy was at its height, we were safely out in the desert. Sand and storm are perhaps not ideal companions, but there are worse.

The 20th April was bazaar day. Very few people were about. I went out to get provisions. On the way I met a small troop going the round of the bazaar—a frightful sight that made me turn sick. At the head went a soldier with a long lance, to the point of which was tied a human hand. Behind him came the criminal, a thief, his back bare, his right

arm held high, bleeding and bandaged. Men with leather whips followed behind him. The poor wretch had to keep crying out: "I have stolen, I am a thief, I stole two bowls. It was a great sin. I am a thief, I stole two bowls. It was a great sin."

Loose shots were fired daily during the parades into the ruined houses of the Chinese. There was incessant fighting in the courtyards. Husbands beat their wives, mothers their sons, brothers their little sisters, and every now and then the *shirrchen*—or overseer—would come and give the whole company a taste of his flat leather whip.

By the 28th I had got a good way east of Keriya to the little town of Chira, which is now quite a thriving community. There I had a real adventure. A few minutes after our arrival at the serai, two soldiers came and announced that the pasha wanted to see me. I said that I had to wash and change my clothes and brush my teeth, but that after that I would come, and that I should have done so even if the gentlemen had not come to fetch me, for I knew what etiquette demanded.

Five minutes passed. Then twelve soldiers marched into the courtyard of the serai, and their commander informed me sharply that this was not a question of a formal visit or an invitation, but was an order. "Come with us immediately!" This was a new and interesting tone which I had never met with before. When I was ready, I went out to the troop and Tomes came with me.

A well-armed company of soldiers was waiting outside the serai and followed after us. The news had spread like lightning, and the streets were packed with people eager to see the impudent *kapir* (=kafir), the unbelieving dog, who had had the impudence not to obey instantaneously the summons of the pasha, Emir Abdu Kadir Da achon.

We were led into the yamen, not through the main gateway, but by a narrow side entrance. "This looks promising, Tomes!"—"Swine," he answered, for safety's sake in Russian.

We halted in the inmost courtyard, and the soldiers placed themselves in two rows. Between them stood Tomes and I.

The Mighty One came out from the yamen and sat down on a stool, surrounded by a brightly dressed group. The peacock is poorly attired in comparison with these gorgeous self-made rulers. His tunic was of green velvet with gold lacings, his trousers of vermillion, his turban black, and the coat was adorned with mother-of-pearl buttons like an Italian accordion. A white feather hung over his brow. His face was cruel and, like his hands, was filthy dirty. The costume was that of a prince, the man himself a coal-heaver.

I bowed politely and said, "*A salaam aleikum*," the usual Turki greeting, to which one is bound to answer, "*Aleikum a salaam*," both according to common usage and the dictates of the Koran. So that I was extremely surprised when instead he wrinkled up his nose and said to the interpreter at his side: "Let him take a few steps back, he is too close to me." Evidently I was not sufficiently sweet-scented for him.

Then began a priceless cross-examination. He did not know that I understood their language, but used an interpreter who translated into Chinese, which I also understood. The Chinese was translated again by Tomes into Russian, generally with pithy commentaries.

"Äti nema?—Ta di minze?—Vashe imia?—What is his name?" One had plenty of time to think before answering the question. "Where does he come from?—What is he doing?—Where was he last?—Where is he going?" Always the same *he, he*. I grew more and more furious. At last he said: "He can go."

All this time the soldiers had been standing loading their rifles, old muzzle-loaders with matchlocks dating from the sixteenth century. They put in gunpowder first and a wad of paper after, but no bullet, so the idea was simply to make me jump out of my skin with fright when they fired. The

pasha's eyes looked wrathful as I nodded approvingly at their toys.

"He can go." Oh yes, I thought, he can certainly do that, but he can say a word or two before he goes. When I really see red, I become quite eloquent—in Turki—and I began a short oration in the pasha's own tongue.

"I have been travelling about this country for six years. Wherever I have come, I have always been treated with courtesy and politeness. Whenever I have met a Mohammedan, he has always answered my 'A salaam aleikum' with his 'Aleikum a salaam'. This is the first time I have known a Mohammedan say instead: 'Let him take a few steps back, he stinks so horribly.'"

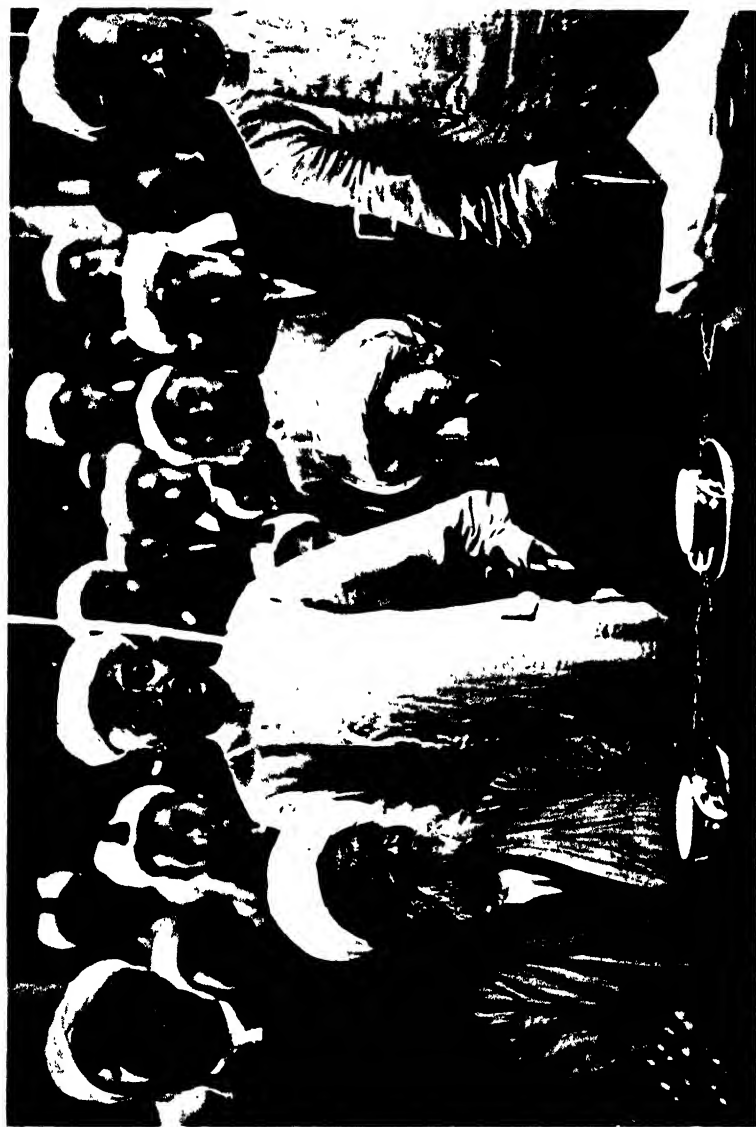
The pasha turned pale, and a low approving murmur arose from the priests and people. The worthy pasha had made a great mistake when he forgot to answer my greeting. He lost face by it, whereas mine was as large and broad as his was thin and narrow. I felt at once how the land lay, and realized I must strike now while the iron was hot, so I continued in great form:

"Always before when I have been to see a burgomaster or provincial governor, or even the governor-general, they have opened the main gates and welcomed me honourably. And when I met these people, they always offered me a chair, and not until I had sat down did my host ever sit. Here it is not only the other way about, but my host actually sits himself while he lets me stand. Then the first question was always: 'Have you had a good and successful journey, have your animals stood it well? Are you in need of provisions, or is there any other way in which I can be of service?'"

The old men shook their heads. I went on. I knew what respect the men of the new Government had for the Royal houses of Europe, in particular of England, and I lied heartily about my many meetings with the great ones of the world. "When I went to say good-bye to His Majesty the King



A little girl follows in the furrow sowing the grains of wheat one by one



Muhammet Emin Emir (in the black chapar), pasha of Khotan

at home in Sweden, I was treated kindly and courteously. And when I went to call on Kaiser Wilhelm, it was just the same, and in London I may tell you that King George offered me a cup of tea with twelve lumps of sugar in it! But, of course, it is interesting to see the different customs that prevail in different places. And now allow me to express my thanks for the extremely charming reception that your glorious and illustrious Excellency has seen fit to accord me."

With my hand on my heart and *salaam* on my lips I made my deepest bow, turned on my heel, and marched off, after first instructing Tomes for safety's sake to translate my discourse into his more musical and well-turned Turki. Tomes had seen the splendour of the Chinese court—I had never seen any court at all—and he not merely translated my tale, but added some rich oriental colour effects.

Half an hour later I was sitting at the caravanserai writing up my diary, when two officers arrived from the yamen. They were extremely polite, and asked me not to take what had happened at the yamen too seriously. The pasha was new in these parts, and did not know how to behave towards people of quality. "Don't mention it," I said, "it didn't matter at all. It is always interesting to observe how people behave in different parts of the world, and how customs vary. The Prince of Wales is particularly interested in exotic countries like this, and when we parted, he asked me to write him a few lines some time and tell him about my experiences, so I am just busy now writing a little account to *The Times*, which I hope will interest and amuse him."

I had a special reason for talking so much about the English Royal family and *The Times*, which they knew very well was the world's newspaper. The men of the new religion were particularly anxious to obtain friendly relations with England, and it appeared later that my bluff on this occasion had been extraordinarily successful. The two gentlemen left the serai in black despair.

CHAPTER XXIX

Your Excellency!!—a Tragically Short Chapter

THREE days later, on the 1st May, 1933, Herr Ambolt, wearing a white Swedish student's cap, made his entry into the town of Khotan. My fame had preceded me. As usual, I put up at the house of the old Badrudin Khan, and my reception was rather different from that in Chira. Immediately on our arrival, two ministers appeared from the new Central Government, which had its seat there. They asked to speak to Tmes, not to me, and Tmes went out. They wondered when sahib would be able to receive them, and asked Tmes how long it would take me to wash, change my clothes, and brush my teeth. Tmes grasped the situation at once and said graciously that it might take about half an hour, but after that he would see whether an audience could be arranged.

Tmes came in again smiling to himself. In half an hour's time the two gentlemen were back again. "Please sit down."—"Sahib first!"—"Always after my guests." Whereupon they sat down delighted, and we drank tea. "Has sahib had a good and successful journey?"—"Thank you, quite excellent."—"Sahib's animals are all strong and healthy?"—"Perfectly."—"Does sahib require any maize or clover for his animals?"—"Yes, indeed I do, your kindness touches me deeply."—"Pasha, our gracious king, whom Allah—praised and glorified be his holy name—has recently installed in his high office, sends greetings to sahib and instructs us to say that he is sending two sheep, a sack of rice, tea and sugar and

some ducks as a small gift of welcome, which he hopes that sahib will graciously accept." I inquired when it would suit their glorious master to receive my humble and childish insignificance, and we agreed upon the following day, parting under mutual assurances of our own lowliness and each other's greatness.

On the next day, the 2nd May, I paid my visit to the supreme authority, *Muhammet Emin Emir*, who held all the real power, even though a *Malik* (king) and a *Da Mollah* (high priest) were above him in rank. The emir, or general, was, of course, the one who counted for most in war-time. That visit was a memorable one. After the usual politenesses, in the course of which I discovered that I had risen to the rank, honour and dignity of *Excellency*, we began to talk about my work, and I received the following gratifying information.

"During the régime which preceded ours, Your Excellency has often had great and undeserved difficulties to contend with. The authorities have done their best through these last years to make your work, and that of your countryman, the brilliant geologist, Dr. Norin, and of other outstanding scientists, such as, for example, Dr. Stein, difficult or sometimes even impossible. We, who represent Hukumet Islamia Djemhuriyet, the new Islam, are anxious to support your scientific work in every way. You have a free hand, do whatever you wish."—" *Shu gepp nāhājēti tatlik*," I replied, "That is sweet talk," and I began to expound my plans for the future. After a time the chief instructor to the troops came in and delivered a message to his master, who thereupon said: "We have taken the liberty of arranging a military parade in honour of Your Excellency."

Half an hour later I, the student from Lund, was standing on Khotan drill-ground saluting the troops as they marched past. Frantically recalling our own rigorous drills at Revingehed and Axvall, I assumed a dignified military bearing and stood stiffly to attention.

Last of all came the élite troops, the highly trained light infantry, with aquiline noses and piercing eyes, preceded by the regimental band. With deep solemnity, to the strains of " Yes, we have no bananas ", I made my very smartest salute.

CHAPTER XXX

Feminine Intuition and Turki Religion

GHOLAM MUHAMMET KHAN, the British Ak-sakal in Keriya, came also to Khotan, and we were neighbours. He was helpful and charming, like his brother in office, the old Badrudin Khan, and I owe the following amusing story to him.

The British consuls in Kashgar often have to make long journeys through Chinese Turkestan in connexion with their official duties. One of them in particular, Mr. Skrine, is known throughout the length and breadth of western Taklamakan. His wife is equally well known, and it was of her that the Ak-sakal told me the following anecdote while we ate a juicy melon in the garden.

On one occasion the consul had to visit Keriya, and Mrs. Skrine went with him. They were met in Chira by Gholam, who had a house there; Mrs. Skrine was introduced to his wife, and the two ladies made great friends, exchanging presents, playing with the children, and generally enjoying themselves. The very next day the Skrines rode on to Keriya. When they arrived there—the Ak-sakal had another house there, in which the consul and his wife were to stay—they saw a group of children playing in the courtyard. “How clever of you to get the children here so quickly, for we have ridden quite fast ourselves,” said Mrs. Skrine. “Ah,” laughed the Ak-sakal, “these are different children, I have another wife in this town.”—“Why, yes, of course,” Mrs. Skrine said, “but then I must meet this little wife too.”—“By all means,” the Ak-sakal replied; “we are going to have a big tea-party

for all the ladies hereabouts, and memsahib shall meet her then." The party took place that afternoon. The ladies all assembled first, and then the consul's wife was ushered into the room. It must have been a splendid and colourful sight that met her eyes, and in the forefront stood the little wife. Mrs. Skrine went up to her and opened the conversation, after exchanging the little peck on the cheek that is the correct greeting between ladies of fashion, by saying: "I am so pleased to meet you. I met the Ak-sakal's wife in Chira yesterday, and I have spoken to your charming children already." The Ak-sakal's little wife was completely bowled over. She had been so proud and happy to think that her husband did not bother to have more than one wife.

This was not any lack of tact on Mrs. Skrine's part—most well-to-do men have *at least* two wives, and the rivals are generally acquainted with each other, even though they mostly live under different roofs. But this crafty Ak-sakal had succeeded in keeping his secret. Mrs. Skrine saw, of course, how upset the little lady was, and her feminine intuition quickly told her why. She was not the wife of a diplomat for nothing. She knew how to get out of the most delicate situation with flying colours. Mrs. Skrine leaned over the little wife and whispered: "She was *sixty* years old." That altered matters, the little wife in Keriya was twenty-five. She brightened up, and became merry and gay again. Sixty years old! She was obviously some old hag whom the Ak-sakal had married simply to get her money, and ultimately that would benefit her too. The party was a great success. The little wife never found out that "she" was actually not sixty but only eighteen.

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Thanks to the kindness of the authorities, I had one more opportunity of visiting the mountains of Karanghu-tagh. I travelled with a light caravan due south over Ulugh-dawan—the mighty pass—to the town of Karanghu-tagh itself. The

hillmen, however, were as obstinate as they had always been before, and my efforts to get up into the mountains failed. There were no yaks, sheep, horses or donkeys to be hired. Above all they showed no *desire* to help, and I had to go back with my mission unfulfilled, even though I knew very well that the valleys were full of thousands of animals at pasture.

I went back by the route I had taken before, through the ruined town south of Hasha. There I was more successful. I talked to the old men and told them that I must get hold of some old object from the town up on the terrace. Whether there were any or not, *Chuda biledo*—Our Lord knows. Those words helped me immensely. On arriving there I had asked first for water to wash in and then for drinking water, and now I could hear the old men discussing me. "Sahib must be some kind of Mohammedan. He washed himself before he drank, and you heard yourselves how he said 'Chuda biledo'. He obviously believes in Allah and the Prophets, and we must help him." Until they discovered that I was a kind of Mohammedan, there was absolutely nothing for me, but as soon as I was "converted", I had any number of pitchers to choose from, and took several of them home with me.

The valley below Hasha was full of the glorious scent of flowering *Jigdān* and *Chigirt mak*, a pale-blue iris with yellow veins. It is not often one meets with a pleasant scent in Sinkiang. Japan has been called "the land where the flowers have no scent and the women no hearts". The same would apply very well in general to Sinkiang, but there would be no harm in adding, "where the children have no clothes and the men no face, but two tongues instead".

On the way back to Khotan the Yurung-kash-darya was so swollen that it could not be comfortably crossed on horse-back, and we had to go over on rafts of inflated goats' skins, called *tolom*. The animals were swum across by a naked youth.

Tomes had stayed on at headquarters attending to the

meteorological work while I was in the mountains. I got back to find him in a storming temper. On my instructions he had roasted a duck for our old friend Moldovack, and Heli achon, the silent youth whom he had picked up on the road, had taken it over and had just come back and proudly showed him a coin which he had been given for his trouble. This infuriated Tomes beyond measure. "The miserable wretch has been and sold the duck!" he said, black in the face with rage.

CHAPTER XXXI

Homeward Bound

ON the 12th June, 1933, I was ready to set out again. The authorities had given me my visa, and, which was equally important, had lent me money. This time I hired a caravan of fifty donkeys for the transport. I myself had seven native servants, with Tomes and Tavekkul at the head. Both of them had learnt to help with the scientific work in a marvellous way, and took every possible care of my personal comfort. I gave a big dinner before I left at Badrudin Khan's serai, for seventy persons, price twelve shillings, and no one went away hungry.

I took old Khan Sahib a farewell present when I went to say good-bye to him, and the fine old fellow thanked me so warmly that my eyes filled with tears. "May sahib get safely back to the land of his fathers, and find his father and mother well."

Hardest of all was the parting from the eighty-three year old Karekin Moldovack, who suffered badly under the new régime. It is often difficult to find words to express one's feelings when they are deepest. We parted in silence.

I left yet another faithful friend behind in Khotan. "Chil" ended his days there; some scoundrel had poisoned him.

Khotan bore clear evidence of the battles that had recently raged there. In a wide belt running through the town all the houses were in ruins. They had sprayed paraffin from the town wall over the house roofs during the fighting and set

light to it, and Moldovack, who was unable to move himself, had been rescued by a faithful servant.

One of the soldiers pointed out to me, not without pride, some big dents in the metal plating of the town gate. "That's the marks of our guns, that is." Undoubtedly the reason why not more of the attacking Turkis were killed during the investment was the old habit the Chinese have of firing up into the air to frighten the enemy. A humane and even endearing method of warfare, but possibly not very effective.

There were traces of the fighting outside the town too. The battle had raged fiercely between Zawa and Kum-rabat, and several corpses lay along the roadside still unburied. Low grave-mounds stood everywhere. In the little village of Pialma an officer related with pride how they had killed the garrison at Yarkand.

After enduring a siege of several months, the Chinese had capitulated on the condition that all arms, ammunition and money should be handed over. In return they were to be allowed to march out in safety. The Turkis agreed to this, but nevertheless sent a well-armed troop in advance in the direction in which the Chinese were to go. They also sent a troop after them. One day's march from the town, the fugitives were trapped between these two forces and slaughtered to the last man. Men, women, and children. The Turki related with particular gusto what they had done with the children, the "spawn". "We threw them all in a heap, and poured paraffin over them and lighted it. We didn't want any seeds left to sprout of that race."

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We followed the route over the steep Sanju-dawan to the valley of Kasa-kash, and then proceeded through Kengshewar up towards Haji-langar, again crossing several "white patches" on the map.

I tried to complete the theodolite work which I had

previously begun. On the 21st July we were at the top of an unusually high peak, about 19,500 feet. The servants, wrapped in their coats, were lying on the ground asleep. I drew in the peaks one after the other and noted down the readings from the theodolite scale. My view was obscured by mist for a moment, and just then I noticed that my hands were prickling. When I stretched out my fingers, tiny sparks shot out from the tip of each finger. We were in the midst of a thundercloud. There was a strong smell of ozone everywhere.

That evening we had a feast in the camp. Kerim achon, a Kirghiz hunter whom I had engaged, had shot a magnificent yak. Tomes was *chef de cuisine*. He took some flour, piled it up with both hands in a metal bowl, and made a dough with salt and water. While Tavekkul looked after the fire and bellowsed the red coals, Tomes went on kneading his great lump of paste. The kidney fat was melted in a pan, and a huge piece of meat cut up into small cubes. When the fat was boiling so that the pan was covered in blue smoke, these cubes were thrown in and fried. The bones and tongue were cooking in another pan. A few ladlefuls of gravy from this were added to the meat pan, which was then half filled with water. The dough was rolled out thin with a roller about an inch thick, and cut into long, narrow strips. All the rest of us sat round the pan solemnly waiting, until finally everyone was given a strip of dough, and we set to. The strip is laid over the left forearm and held between the thumb and first finger, while with the right thumb and first finger small pieces are broken off and thrown into the pot. Strip after strip vanishes as quick as thought. Five minutes later the dish is ready, and is consumed in eloquent silence.

This was our stock dish, whenever we had meat and fat. When we had not, we could manage all right with the dough alone, boiled in water; only then the silence was eloquent in a different way. On really festive occasions, Tomes would pour

in a little brown vinegar, made from bread, which made the dish extremely tasty.

Tongue was my special joy, particularly yak tongue. When cooked, it was skinned, and kept as cold stores. In the parts of the country where the yak lives wild there grows a small artemisia called *japchan*, which is strongly aromatic. The yak tears the leaves off the bushy stem of this plant with his bristly tongue, and some of the scent penetrates into the flesh of the tongue and gives it a peculiarly delicate flavour.

A few days' march farther south we had an unpleasant adventure. We had just negotiated a pass and come down into an undulating plain. The caravan was working on ahead, and I was triangulating. When I had finished, we packed the instruments on a little donkey, and Tavekkul and I hurried on ahead, leaving Said achon and Sidek achon to follow slowly after with the donkey. "Follow the main caravan track," was the last thing I shouted to them. We were about six miles from camp, and we went full steam ahead.

In the camp I immediately ordered a lantern to be hung up and a fire lighted, so that the two who were following after should have no difficulty in finding their way, and this was done. It grew dark and no one came. We took it for granted that they had decided to spend the night by the source of the stream which flowed past our camp.

Morning came, it grew to twelve o'clock, and still we did not see a soul. By then I had become seriously uneasy and sent men out to search for them, but without result. In the evening the atmosphere was low. We had wretched pasturage, and our stores of maize were dwindling. We had not brought large supplies with us this time, as we did when we travelled through the same district a year before.

Another great bonfire was lighted in the evening, and another lantern suspended from a tall pole. That night snow fell. In the morning Tavekkul and the new caravan bashi, Gholam Ali, took the two best horses, some maize, bread,

meat, tea, a cooking pan and sleeping things, and rode off in search. They were my best bloodhounds, and were confident they would find the wanderers. They returned at eleven o'clock the next evening, triumphant but angry. They had found the two sinners six miles away to the south-west.

The evening we left them, they had followed the caravan track all right until suddenly they caught sight of a fire, and little Sidek cried out delightedly: "There is the camp!" But Said achon thought not. "It is sure to be a will-o'-the-wisp, a fallen star or some other devilry. We had better go in the opposite direction." So they went in the opposite direction, for Said achon had a beard and was consequently a wise man, much wiser than the bright little Sidek. They wandered till midnight, encamped without food or fire by a stream, and discussed the situation. "The best thing will be to go to Ladak." That was twelve days' march away.

They walked till evening, and again encamped without fire, though with water and tolerable pasturage. But by now their strength was at an end. After a fresh consultation, they agreed that their hour had come. Allah so wished it, praised and glorified be his holy name, his will be done. They bathed and washed themselves carefully, and prepared to die. But at midday the next day Tavekkul and Gholam Ali arrived, and routed them ruthlessly out. Even they both thought that it was unpardonably, clownishly stupid and rated them soundly, but gave them food and tea. Late that evening we had them back in camp again.

It is a horrible feeling when someone is missing and you know that if he does not find his way back to the caravan, he is lost beyond hope. We had lost many animals, but so far no human beings, and we escaped this time too.

The rest of the journey passed off successfully, and we had no other misfortunes. Our last difficult bit was on the 4th August: the crossing of a pass, on the other side of which the rivers drained towards the Indus. I had never been so high

before. The atmospheric pressure was about fourteen inches, less than half what we have at home, the height was something over 19,500 feet. In spite of the altitude, I found a little flower up there, *Ermania Himalayensis*, perhaps the highest flowering plant ever found.

On the 9th August we passed Marsimik-la and built an imposing *obo*, our farewell to the mountains. That was the end of the topographical work. After that we were in known parts, and I concentrated my attention on the herbarium. I should have liked to make a gravity determination in the neighbourhood of Panggong-tso, but my eyes had begun to give me trouble again. I had suffered from trachoma ever since 1928, and the recent intensive theodolite work had increased the inflammation. So we made straight for Leh and civilization.

It was a year and a half since I had had any letters, since I last saw a newspaper. Bishop Peter of Leh thought I should be glad of letters, the sooner the better, and sent me a bundle by messenger. I met the man just as we reached the Indus. He had to lead my horse by the bridle while I read. I was seeing one of the mightiest rivers of the world for the first time, but I did not notice it.

Bishop Peter and his wife looked after me in the same charming way as they had done for so many other travellers. The British Joint Commissioner, Captain Ryan, and his wife received me with the pleasant, courteous friendliness which is the special characteristic of their nation.

It was two and a half years since I had last seen a telegraph station. There was one at Ak-su, but when I tried to send a telegram home from there, the official in charge kindly but firmly rejected such a ridiculous proposal. "For," he explained, "to begin with I have no idea how much it would cost, and in any case the line is not working just now."

The journey from Leh to Srinagar in Kashmir was glorious, as was the time I spent in Leh before we started. All the time

one kept meeting people, new and charming people, and as I wrote in my diary, "I am terribly talkative".

I was welcomed in Srinagar by a Danish friend, Bent Friis-Johannsen, who not long before had taken part in the search for me when I had "disappeared". I stayed in his pleasant houseboat and had a very happy time. At the house of the hospitable Colonel Bailey and his wife—he was the British "Resident" or Governor—I met Maharajahs with big diamonds in their ears, and American men and women. We had a tremendous time. Lady Cozens Hardy, the mother of Mrs. Bailey, was a warm admirer of Sweden.

I came upon Sir Aurel Stein, in a garden which dated from the Mogul Emperors, several miles outside the town. He was living in a superb tent and was deep in his work—as always, I suspect.

I even caught a glimpse of Mr. Tyndale-Biscoe and his family. Mr. Biscoe has been a blessing to Kashmir, the land where "every prospect pleases, and only man is vile". For almost forty years he has struggled, not without success, to raise the standards of the moral and physical life of the people. A forceful, humorous and energetic organizer, a man with his heart in the right place.

I struck up a pleasant acquaintance with an Indian professor of philosophy, and altogether made several friends among the Indians.

The country was wonderful. The eye was hardly able to follow and take in so many impressions of life and movement. For years I had been accustomed to dry deserts and dead rocks. From the moment we crossed the Zoji-la pass in the Himalayas, it was as though we had turned a page in a picture book. The steep hills and sharply cut valleys remained, but everywhere were covered in green. The richly coloured and gloriously scented vegetation crept right up to the glaciers. Every little slope was wooded, every scrap of plain cultivated. Houses and people were everywhere, and water too.

Srinagar itself lies in a large plain. The great Jhelum river winds through the town, thickly dotted with house-boats, and swift little *shikara* carry the visitor, reclining comfortably in the bottom of his craft under fluttering, cool Kashmir shawls, through picturesque canals, and beneath enormous bridges connecting the different parts of the town. The banks are often shaded with dark plane trees. Suddenly you come out on to a wonderful lake, closely carpeted with magnificent lotus flowers. The horizon is fringed in every direction with impressive mountain ranges, with here and there a snow-clad peak.

And in Srinagar I parted from my faithful servant Tones. He had risen continuously in rank. He began in Kuruk-tagh as an ordinary servant, soon he became cook. In Khotan he was interpreter and meteorologist. In Chang Tang he was the born hunter, who never shot an antelope mother with young at her side. During the last phase of the revolution—when I became an Excellency—he became a respected sahib, although without a beard. When we parted one early morning—it was still twilight and a light mist lay draped over the canals and rivers—it was with a handshake between two friends.

On the bank of the river where Friis-Johannsen's house-boat was moored, stood a powerful open car. The back seat was full of haversacks; the theodolite, which travelled in my arms, was waiting on the ground. Everything was ready. Beside me stood Tones with an oblong parcel in his hands, and made a little speech. He said that he had received so much from me—my penknife, my saddle, my boots, all my stockings and shirts, clothes and hats and much else besides, in addition to his wages—but, he added, "my master has never received anything from me, and that is not in accordance with the True Teaching."

He had, therefore, tried to find a present for me, and he held out the little parcel. It had a piece of red paper on top,

the symbol that it was a gift, and it looked festive and decorative. He raised it in his outstretched hands with a dignified gesture three times to his forehead in token of respect and affection, and handed it to me. Inside the parcel were his own Chinese ceremonial robes, a long blue coat and a black jacket, both from the time of the Emperors. He had had them when he went with the embassy to Peiping to fetch the Mongol prince's bride. It was a valuable gift, it was given with a good heart, and remains one of my most treasured relics from my time in the East.

We went through Rawal Pindi and then by train via Lahore to Calcutta, where I was given a great reception by Swedes, and spent some wonderful days with the most interesting and amusing companions. On the 10th October I boarded the Swedish East Asiatic m.s. *Delhi*, which was to carry me home. That was the end of the great adventure. My diary says:

"We are gliding over a glittering, sunlit sea. Porpoises are jumping in great circles before the bows, where at even-tide the foam shines with a magical greenish-white. Flying fishes lash the crests of the waves. The captain and I have become marvellous friends. We fix positions by the sun and the stars, argue mathematics, astronomy and physics, and play beggar-my-neighbour and chess. Every now and then I put a favourite record on my gramophone, according to our moods. Time flies by. The cook knows his job, and I shall be putting on weight heavily. Yesterday was the first Thursday, and of course we had peas and pork. The waiter, Kalle—a Scandian from Vitaby—looked at my portion with horror—it was a good hearty one—and I could see him writhing and thinking to himself that I had not picked up civilized ways yet. At last he said in a warning and informative whisper: "There are pancakes and jam to follow." The sailors certainly make a good impression. One can see what a pride they take in keeping everything shipshape. They are healthy

boys with blue eyes and flaxen hair, and muscles to be proud of. Astern flutters the blue and yellow flag. We are on *Swedish* soil."

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When Norin and I began our journeys in Kuruk-tagh, we were accompanied to our first camp by two particular friends, Mr. Ding, the Chinese station secretary, and his charming wife, Siulien. Whenever he spoke of his wife, he always used to call her "The evil thorn". Norin and I, who both knew our Karlgren, preferred to call her "The gem of price" or "The ten thousand ounces of gold".

They brought us two long boxes, full of delicious cakes. On the lid of each was a Chinese character-picture in warm red colours, the characters painted in velvety black with the elegance which is the hall-mark of the highly educated Chinese. On Norin's was written:

一路平安

"May the Palm of Peace shade your path."

And on mine, the astronomer's:

一路福星

“ May a lucky star light your way.”

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My thanks to you, my lucky star!

